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ABSTRACT

A study was conducted to determine whether the acquisitions and processing services available to Neill Public Library in Pullman as a cooperative member of the Washington Library Network would be more cost effective than in-house acquisitions and processing operations. The relevant literature is reviewed and descriptions of work studies in acquisitions, cataloging, and processing done over a period of several months at the library are provided, including a three-month check on the time required to move a book from its unpacking to the circulation shelf. Flow charts for the individual processors and a model processing flow chart were developed. Questions of the comparative quality of in-house and network processing were investigated through observation and interviews. Tables and graphs present information on the efficiency of acquisition and processing as it is done at Neill Library, its use of volunteers as a factor in keeping costs down, processing times for special requests and regular books, and times and costs per volume at the library and through the network. Results indicate lower cost and higher quality exist through the in-house system, and recommendations focus on improving in-house procedures rather than joining the network. A bibliography and several appendices are included. (MBR)

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A STUDY OF ACQUISITIONS AND PROCESSING COSTS IN A SMALL PUBLIC LIBRARY

Nancy Dollahite Benson

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ABSTRACT

The study was conducted to learn what acquisition and processing services would be available to Neill Library, a small public library, as a cooperative member of the Washington Library Network, and to discover Neill's present in-house acquisitions and processing times, costs and quality. Neill's director was considering joining the Network as a cooperative member through Holland Library at Washington State University and wanted more information about its benefits and drawbacks for her situation.

Due to personnel changes within the Neill staff the juvenile collection could not be studied and data was only gathered for the adult collection, which uses two-thirds of the budget. A second deficiency of the study is that Network acquisition services could not be examined because they are not yet available.

Separate work studies were done in acquisition, cataloging and processing at Neill over a period of several months. A three-month check on the time required to move a book from its unpacking to the circulation shelf was also run. Flow charts of all individual processors were drawn and a model processing flow chart was devised. Questions of quality both at Neill and through the Network were investigated through observation and interviews. Tables and graphs present information on the efficiency of acquisition and processing as it is now done at Neill, Neill's use of volunteers as a factor in keeping costs down, the percentage of books Neill purchases with Cataloging in Publication and/or cards from jobbers with partial cataloging, the time now required to process special patron requests and regular books, and times and costs per volume both at Neill and with the Network.

Lower cost and higher quality of the in-house system indicate that Neill's best course at present is to improve its in-house procedure in accordance with changes suggested by the study.

My thanks to the staff of Neill Public Library and especially to the director, Alice K. Blackburn; their patience and cooperation are greatly appreciated.

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PROBLEM STATEMENT AND BACKGROUND

Neill Public Library, a small library in Pullman, Washington, engages in continuous competition with other city departments for funds. Eighty percent of the library's funding comes from the city budget, with the remaining percentage coming from sources such as overdue fines, book sales and revenue sharing funds. The majority of this twenty percent is from revenue sharing. The library, which serves the community of 25,000, has a collection of about 33,600 items and circulates an average of 9972 items a month with a staff of two full-time professionals, a full-time clerk, a full-time secretary and eight part-time clerical staff.

In the spring of 1977, in order to maintain a high level of service while minimizing costs, the director, Alice Blackburn, was seeking ways to effectively use her resources. An area of library operation which seemed to need examination was acquisition and processing; a backlog of twenty-six shelves of unprocessed books was common and many books waited four to six months before being ready for circulation.[1] This delay led her to consider contracting with a larger academic library in town, Holland Library at Washington State University, for acquisition and processing services.

The growing Washington Library Network, which includes three types of membership, provides a framework for this relationship. Neill has a basic membership in the network, which means sharing resources through

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[1]Estimates by Mrs. Blackburn in October, 1977: 20 shelves of older gift items, 4 shelves of new adult items and 2 shelves of new juvenile items

interlibrary loan. Holland has a principal membership; they contribute their holdings and have direct access terminals to the statewide data. The third possibility, a cooperative membership, is one held by a basic member who contracts with a participating member to purchase processing services. The basic member can then benefit from automated procedures and record purchases in the data bank, but does not have direct access to the data bank.

In discussion with the writer, a part-time staff member at Neill, Mrs. Blackburn decided that the situation required several studies. It would first be necessary to ascertain exactly what services would be available from Holland. Since Holland is not currently doing acquisitions and processing for any outside library, this information was estimated from conversations with Holland staff. The Washington State Library is developing proposed cost estimates for contracts fo this kind within the Washington Library Network; their figures were also collected.

Before making a decision to contract for centralized processing Mrs. Blackburn needed to know more about her own in-house methods, so a study was designed to analyze Neill's current procedures for the same services to see how effectively they are being done. The speed, cost and quality of the present in-house system are compared with the same attributes of the proposed centralized system. Factors of overhead and administrative supervision are omitted because they will not be substantially changed by a different handling of acquisition and processing. If the Washington Library Network is not yet ready with an operational system or if Mrs. Blackburn decides against the contract, an improved manual procedure will be suggested.

It is possible that after a period of six months or more, centralized processing will become more feasible; at that time, another in-house work study of the improved routines will be conducted and figures will be gathered from Holland Library to help in making a decision. Due to constraints of time this paper will concentrate on analyzing the current manual system for acquisition and processing at Neill and, if necessary, recommending a more efficient manual system. Information from the Washington Library Network and from Holland Library will be used to determine which aspects of acquisition and processing to study at Neill.

Both in comparing current and improved manual systems and in considering contracting for centralized processing, a number of factors must be taken into account. Besides data about cost and time, qualitative variables must be recognized. What quality of cataloging does Neill Library need? What quality of cataloging is presently being done and what can be expected from centrally produced cataloging? Will centrally processed cards and books require changes to be suitable for Neill? Will Neill's old cards and books have to be changed to agree with new products? If there are changes who can interpret the card catalog to the user? How much of Neill staff time will be spent in conference with Holland staff over computer problems? What will happen to Neill's relationships with vendors who now supply cards if the library changes to centralized processing? How flexible is each system? Can rush orders be handled and how quickly? What will be the psychological effect of a change on the staff? What are the side benfits of in-house versus centralized systems? How important is it for the staff to be familiar with material through cataloging it themsilves? Will the library improve its accountability to the

city council with a portion of its records in computerized form? Will Neill be able to use the Washington State University computer terminals for more functions later on? This paper seeks to comment on some of these questions, as well as providing quantitative evidence.

OBJECTIVES

1) To discover what acquisition and processing services are available from Holland Library

2) To examine costs of current manual acquisition and processing operations at Neill Public Library

3) To recommend, if necessary, an improved in-house acquisition and processing procedure

LITERATURE SEARCH

Although this is a pragmatic situation which must be resolved in the context in which it occurs, a search of the literature gave some guidance as to what to consider and how to proceed. Reading was done on the topics of centralized processing, automation in libraries, scientific management of libraries and individual time and cost studies. Most references on centralized and automated processing were found since the middle 1960's. Studies of work efficiency, however, began to appear in libraries in the 1940's and some of the techniques developed then are still useful.

Much interesting, but too generalized information on automation in libraries and many good but repetitive case studies are omitted. Considerations of the psychological and administrative effects of automation are most relevant for this study; articles concentrating on these aspects are the ones chosen for inclusion. Case studies are useful for their enumeration of advantages and disadvantages others have found in similar situations and for the techniques they have used. Cost data from other libraries has usually been found irrelevant for a particular situation so is not used here.[2] Information on the Washington Library Network is included because it gives necessary background and should be physically available for reference by any librarian working within the state.

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[2]W.S. Budington, "Cost of Information Service" in The Library as a Community Information Center. (Urbana: Illini Union Bookstore, 1959): 59. and

Lucile M. Morsch, "Scientific Management in Cataloging," Library Trends (January, 1954): 472.

AUTOMATION IN LIBRARIES

The general effect of automation on libraries is perhaps the most important aspect of the problem and the one hardest to define. No formal studies are found because the variables are numerous and difficult to define. However, a number of writers have contributed thoughtful observations.

One of the chief interpreters of computers to the library work, Allen B. Veaner of Stanford, who has written several articles, is hopeful about the capacity of libraries to adapt to computers but advises gradual planned change:

> No automated system can be successful without taking into account human factors and the work environment. Every large organization has a micro-social structure which changes at a much slower rate than external (macro) technologies. To avoid a mismatch between the human being's lesser rate of adaptability and technology's more rapid pace, successful change must be evolutionary.[3]

Aside from the psychological effects, the major impact of automation is standardization of the products.[4] Libraries often balk at this, but Veaner observes that library records need only be usable for their public, not perfect, because they are not archival material. Automation is not cheaper and does take away some local freedom of choice about procedures, time-tables and products. In many cases, joining a processing center may be a better answer than automating the individual library.

Veaner recommends that a library considering automation first thoroughly analyze its present system.[5] The director should determine unit costs, unit times and peak loads. Automation is a reasonable alternative if it helps do something less expensively, more accurately, more rapidly or more effectively

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[3]Allen B. Veaner, "BALLOTS -- The View from Technical Services," Library Resources and Technical Services 21 (Spring 1977): 141.

[4]Veaner, "Application of Computers to Library Technical Processing," College and Research Libraries 31 (January 1970): 30-42.

[5]Veaner, "Major Decision Points in Library Automation," College and Research Libraries 31 (September 1970): 299-312.

when the operation has become unwieldy because of increased volume or complexity. Automation may also free librarians to give better public service. Computerized procedures should be chosen not only because they are technically and financially possible but primarily because they give the best service to users.

In an article published in 1974 Veaner considers several factors that have interfered with the application of computers to library work. He feels that computer facilities are too often in a state of instability. Constant change of hardware and/or software is inevitable in a computing center and has caused frustration to librarians attempting to use it. Library jobs have often been postponed until after prime time and their output delayed because they were too large or less interesting to computer staff. The computer staff, Veaner feels, have sometimes felt superior to computer users and acted in obstructive ways. Librarians have failed to understand their own manual systems in full detail and have been reluctant to talk to computer staff. Librarians have little experience with the kind of precise description necessary for computer programming and do not know how to describe their operations quantitatively. Some sacrifices in regular production and a continuing concern with computers will be necessary in order for librarians to use computers effectively. In visiting twenty-four large academic libraries Veaner found that libraries are losing their position as "heart of the community"[6] to the computing center. Accountability is difficult for libraries which consume money and produce intangible products, but easy for a computing center, which is essentially an accounting machine itself. A few libraries and computing centers as at the University of Pittsburgh and Columbia have merged their organizational structure.

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[6]Veaner, "Institutional, Political and Fiscal Factors in the Development of Library Automation, 1967-71," Journal of Library Automation 7 (March 1974): 19.

In general Allen Veaner finds the political and emotional aspects of change more aggravating than the technical. The user will go to whatever best serves him and will bypass the library if there is something better. Better service can only be provided through library cooperation assisted by the computer. This is expensive and the challenge, Veaner concludes, is to continue providing excellent service at no cost to the user.

Writing in the early days on automation, Jesse Shera, then dean of the School of Library Science, Western Reserve University, realized that many librarians fear the computer. People are delighted with mechanisms which extend physical powers but regard mechanisms to extend mental powers as challenges to their mental supremacy. The library seems to be a last stronghold of humanism; automation, the instrument of science, threatens it. It is the system, a product of the human brain, not the machine itself, which makes automation work. The value of computers is not primarily their speed but their ability to relate information from a variety of disciplines, their vast memory, their conduct of a number of independent searches simultaneously and their manipulation of masses of trivia. Anything which touches the communication of knowledge is the concern of the librarian, Shera believes; librarians should exploit automation for their own good and retain a healthy scepticism.

Dan Mather, in his account of automation is an academic library, recommends considering the goal of service first and then planning ways to reach that goal, which may include automation.[8] He found that having a computer made

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[7]Jesse H. Shera, "Automation Without Fear," American Library Association Bulletin 55 (October 1961): 788.

[8]Dan Mather, "Data Processing in an Academic Library: Some Conclusions and Observations," Pacific Northwest Library Association Quarterly 32 (July 1968): 4-22.

it easier to assemble management information and thus justify expenditures. He also observed that the computer relieved the librarian of routine responsibilities and required her to think clearly about library operations. He cautions against using a disproportionate share of resources for automation just for the sake of automation, for quality of service is then bound to suffer.

Good questions are raised by Paul Fasana;[9] he asks whether a computerized system will give the library what it needs to serve its particular patrons and how a change to automation will affect the consistency and reliability of the catalog and thus its usefulness to the patron. He urges caution and concludes by hoping that librarians will guide developments in automation rather than being directed by them.

Basil Stuart-Stubbs has some comments on how to change to an automated system.[10] If librarians are not aware of automation, someone else will be and will force it upon the library suddenly, he warns. Librarians, therefore, should practice preventitive public relations continuously so as to be familiar to those in authority and ready for quick communication with them in a crisis. Rapid change will arouse defensive feelings among the staff, so to acquaint a staff with automation, he suggests seminars and informal contacts with local computer experts well ahead of any planned change. He advised that the library operate on a double system until the automated one has clearly shown itself to be reliable. The administrator contemplating a change should allow plenty of time for planning, be open to change of plans and draw on the knowledge and experience of the staff.

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[9]Paul J. Fasana, "Impact of National Developments on Library Technical Services and Public Services," Journal of Library Automation 7 (December 1974): 294-62.

[10]Basil Stuart-Stubbs, "Trial by Computer," Library Journal 92 (December 15 1967): 4471-74.

A negative view is presented by Ellsworth Mason, on leave from his position at that time as director of the library at Hofstra University in Hempstead, New York. After examining computerization in ten academic libraries, he doubts that computers have any value for libraries. His observations convinced him:

> that the computer is not for library use; all the promises offered in its name are completely fraudulent; that not only is it extremely expensive compared to other methods at this time, but that it will become increasingly expensive in the future; that it has been wrapped so completely in an aura of unreason that fine intelligences are completely uprooted when talking about it; that its use in a library weakens the library as a whole by draining off large sums of money for a small return and that it should be stamped out.[11]

He found that none of the forty computerized projects in the libraries he visited were started because of a managerial decision reached after a cost analysis; most were begun for reasons of prestige, to pacify an engineering department or because the library was offered free computer time. He advises that a librarian contemplating a change to computers ask himself the following question: do we want something that only a computer can do and, if so, how much will it cost? Mason's comments are extreme, yet they voice common doubts which librarians have about automation.

Automation is a major and inevitable change that is coming to libraries. The need is for librarians to understand computers as useful tools and to do careful analysis of their individual situation before changing to automation. Computers probably do not save money for a library but may have other values. The greatest contribution automation has for libraries is probably the necessity it brings for precise knowledge. Considering computerization forces librarians to take a careful look at their own organization, a valuable exercise no matter what the individual librarian decides about automation.

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[11] Ellsworth Mason, "Along the Academic Way," Library Journal 96 (May 15 1971): 1675.

SCIENTIFIC MANAGEMENT IN LIBRARIES

The technique used for taking a careful look at an operation is called scientific management or, more currently, systems analysis. It developed in industry in the early years of the twentieth century as organizations were becoming so large that direct personal control was no longer possible. Scientific management might be defined as an attitude that the scientific method, emphasizing careful definitions of basic assumptions, quantitative evaluations and continual re-examinations of results, produces better management of a large organization than adherence to intuition or historical precedent. Lucile Morsch of the Library of Congress defined it succinctly as "the application of effective thinking."[12] Ralph Shaw of the National Library of Agriculture called it "organized common sense."[13]

Early studies focused on production rates of individual employees. About 1911 Frederick Taylor developed time studies and the notion of standard times.[14] Later Frank and Lillian Gilbreth devised the flow process chart to measure motion economy.[15] Control of the management process, provided by Henry Gantt's charting techniques, developed during the period of the First World War.[16] Cost accounting, to relate dollar costs and actual work performed, was another tool created to help management decisions. Cost accounting, however, is a continuous study of changing costs and effectiveness of services in the total library. Techniques of work measurement are used in discrete studies to study detailed differences among methods of doing certain operations.[17]

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[12]Lucile Morsch, "Scientific Management in Cataloging," Library Trends 2 (January 1954):470.

[13]Ralph R. Shaw, "Introduction," Library Trends 2 (January 1954): 360.

[14]Robert M. Hayes and Joseph Becker, Handbook of Data Processing for Libraries (New York: John Wiley and Sons, 1970), p. 59.

[15]Ibid. [16]Ibid., p. 60. [17]Ibid., pp. 86-87.

Business data, collected to measure aspects of industry, proliferated and with it, machines to process it, including the computer. The Second World War, with its problems of managing a large-scale military operation, led to operations research on the use of models to describe alternatives in management decisions. Since then, systems analysis is increasingly used; this approach is concerned with both quantitative and qualitative costs and benefits, recognizing that many issues in management which cannot be numerically measured must be carefully considered.

Libraries began to be interested in scientific management as an aid to administration in the 1940's. The first formal time and motion study in a library, examining part of circulation, was reported from the Bradley Polytechnique Institute in 1943.[18] During the next thirty years a number of libraries conducted work simplification studies of various clerical processes. Several typical studies of acquisition and processing are reviewed here, along with more general material giving suggestions on how to do operations analysis of acquisition and processing. Many excellent studies are omitted, because they are repetitions or not relevant for this particular study.

Part of a study of the public library by the Social Science Research Council was a report by Watson Pierce.[19] He sent questionnaires to thirty-seven public libraries which had participated in a study of cost accounting eight years previously, asking what use they had made of the information gathered. He found that administrative patterns and use of professional and nonprofessional time varies depending on the size of the library, with large libraries better able to use nonprofessional time because they do more routine jobs, while smaller

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[18]Richard Logsden, "Time and Motion Studies in Libraries," Library Trends 2 (January 1954): 402.

[19]Watson Pierce, Work Measurement in Public Libraries (New York: Social Science Research Council, 1949).

libraries must use more ingenuity and tailor their services to the community. He recommends increased cooperation among libraries, with the specialized services available at one library to be shared by all in its region. Mr. Pierce included detailed recommendations of how to proceed with a study; this section of his paper is particularly useful for other libraries preparing to analyze their operations. He advises general staff meetings at which the purpose and technique of the study is fully discussed and questions answered. Each staff member should also be given written instructions. After work measurement forms are designed, a trial period of two days should follow for the staff to use and comment on the forms; data from these days is not counted in the study. The period of actual measurement should last between two weeks and two months. Staff members should keep a copy of their total times and performances so that they can compare their results against the overall totals when the data is compiled. He includes a list of 574 library operations which he feels will apply, with some modification, to any library.

Library Trends in January, 1954, discusses "Scientific Management in Libraries." This issue deplores the fact that libraries have not used more formal scientific management and points out its potential for better library organization and service. Techniques of work measurement, the value of standardization, how to design a building for effective management and the role of a management engineer are covered. Of special interest for this study is Lucile Morsch's article on "Scientific Management of Cataloging." She cautions that cost data from other libraries is usually irrelevant; a study had best be confined to careful examination of an individual library in its own context.[20] Gains in cost effectiveness may often be achieved by making the most of each

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[20]Morsch, "Scientific Management," p. 472.

person's abilities, assigning all possible tasks to clerks and reserving the higher-paid professionals for work requiring professional training. She recommends the step-by-step method analysis developed by the War Manpower Commission in World War II. She concludes with the thought that the people are the most important part of management; their needs for incentives and a chance to participate in decisions affecting them must be considered.

William Frieze, then director of Tampa Public Library in Florida, has some helpful comments as he looks at processing from an administrative point of view.[21] In a talk at the Florida Library Association in March, 1957, he analyzes the situation with questions. Beginning with the assumption that the goal is to get books to the shelves and cards to the catalog as quickly as possible, librarians can ask themselves questions in order to see clearly what they are doing. Does a process have to be done? Has it already been done? Can information be consolidated to save typing or do so many people need it that it had better be separated, as in an order file and a main authority file? What batch processing can be done? Can one operation facilitate a later operation? Can we save by changing the order of operations? Can we do it another way? Is the work area well-arranged?

Highly technical studies such as that of Henry Voos, which used stopwatch measurements of very detailed library routines, helped to illustrate work measurement procedures and to set standards for individual libraries.[22]

In an effort to provide prompt service to the public and greatest economy to the library, Donald Dennis wrote a how-to-do-it manual, Simplifying Work in

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[21]William S. Frieze, "The Administrator Looks at Technical Processing: The Public Library," Library Resources and Technical Services 2 (Fall 1957):203-06.

[22]Henry Voos, Standard Times for Certain Clerical Activities in Technical Processing (Ann Arbor: University Microfilms, 1965).

Small Public Libraries.[23] His outline of typical routines for a small library is clear and well-illustrated. Although he covers all the procedures normally needed in a library, it is his material on acquisitions, cataloging and processing which is helpful in organizing the Neill Public Library study. He illustrates a work distribution chart which shows on one page how much time, whose time and how much staff salary is being spent on each step of each routime. His simplified process chart listing the title of the worker, a description of each step of the process, the distance moved during the task and the length of storage delay show, more easily than a flow process chart, the amount of movement done and the length of time delay. These two charts seem to be the most appropriate models found to use in part of this study.

An example of a study comparing costs for centralized and in-house processing is a research paper at the Graduate School of Librarianship of the University of Denver by William Swinney.[24] He followed the progress of sample batches of twenty books each at each of six schools. He found centralized processing cheapest, processing by the individual library next cheapest and commercial processing, i.e., cards from a vendor, most expensive.

The organization of work is the focus of a study by J. McRee McElrod.[25] Work can be organized by type of material, with clerks processing all cards and even cataloging new editions and added copies, while professionals only do original cataloging. Or work can be organized by routine, with each person

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[23]Donald Dennis, Simplifying Work in Small Public Libraries (Philadelphia: Drexel Institute of Technology, Drexel Library School Series #11, 1965).

[24]William G. Swinney, "A Study of the Comparative Costs of Centralized Processing and Individual School Processing of Library Materials" (M.A. paper, University of Denver, 1967).

[25]J. McRee McElrod, "The Staffing of Technical Processes," Library Journal 91 (May 1 1966): 2275-77.

doing one task and passing the book on. In general, McElrod too recommends cutting labor costs by having as much work as possible done by clerical staff.

One of the clearest and most helpful studies was done by Donald D. Hendricks in comparing processing costs in a processing center and in five individual libraries. Hendircks considered such factors as quality of catalog cards, effects on the staff of a change to centralized processing and quality of service to the user. He used interviews, a stop-watch, and diary forms to conduct his study, randomly sampling the work done over a period of several months. He found in-house processing to be least expensive and most suitable in other ways.

> Physical preparation of library materials is significantly cheaper when done at the local library than when done centrally, because cheaper labor is available, volunteer help can do this work and the work can be completed when other tasks are not convenient.[26]

He suggests that a library order cards from a processing center at the same time that book is ordered. Cards and book would then arrive at about the same time and processing could be done at once. He recommends cards from a center rather than from a jobber because the center can do more customized work and is faster.

The April, 1973, issue of Library Trends is helpful in orienting the reader with the current use of systems analysis in libraries. It collects a number of articles which discuss how to apply the technique of systems analysis to identify problems in libraries and develop more efficient systems. The bibliography for each article provides background references on specific studies done in the last ten years, thus providing one of the best sources of recent work. An outline of the steps to be followed in implementing a systems study in a

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[26]Donald D. Hendricks, Comparative Costs of Book Processing in a Processing Center and in Five Individual Libraries (University of Illinois: Library Research Center, 1966).

library is given by Edward Chapman.[27] Of special interest in this situation is Fred Heinritz's recommendation. In reviewing the methods of doing a work-study, he advises use of a decision flow chart when automation is being considered; since the alternative courses of action are clearly seen, it is easier to think about substituting an automated procedure for any of them.[28] Systems analysis in general is a useful tool as a prelude to automation, according to Ruth Carter because automation requires precise thinking and systems analysis organizes the library so as to present a more precise picture.[29] Strategies that can be used when a decision about change in a library must be made are described by James Corey and Fred Bellomy.[30] One's approach must be adapted to the situation, they advise, and may be anything from a formal systems analysis to a decision made by an individual librarian based on her experience and knowledge. Once current procedures have been studied and either modified or replaced, continuous cost accounting to monitor the library's efficiency should become part of the routine. Roderick Duchesne offers some guidance on how to do this, along with sample budget statements and cash flow projections.[31]

The Scientific Management of Library Operations by Dougherty and Heinritz is essentially a handbook on how to do a scientific management study.[32] Pointing

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[27]Edward A. Chapman, "Planning for Systems Study and Systems Development," Library Trends 21 (April 1973):479-92.

[28]Fred J. Heinritz, "Analysis and Evaluation of Current Library Procedures," Library Trends 21 (April 1973): 522-32.

[29]Ruth Carter, "Systems Analysis and Prelude to Library Automation," Library Trends 21 (April 1973): 505-21.

[30]James F. Corey and Fred L. Bellomy, "Determining Requirements for a New System," Library Trends 21 (April 1973): 533-52.

[31]Roderick Duchesne, "Analysis of Costs and Performance," Library Trends 21 (April 1973): 587-603.

[32]Richard M. Dougherty and Fred J. Heinritz, Scientific Management of Library Operations (New York: Scarecrow Press, 1966).

out that scientific management originated in industry, the authors go on to say that the technique can help libraries develop accountability and demonstrate efficiency. After a careful examination of one's work it is fairly easy to improve production by rearranging the work area, doing tasks in a different order or doing more batch work. Each type of diagram or chart which librarians may want to use is explained and well-illustrated. A block diagram of the entire operation and a flow process chart make it easy to spot delays or excessive travel within the work area. If the process under study involves a number of decisions the authors recommend a decision flow chart. An operations chart shows in detail the bodily movements required to do a job. To establish average time and performance standards, Dougherty and Heinritz suggest a time study, a method of measuring the time required for a well-trained person working at normal speed to do a specific job. The second half of the book covers how to do sampling, the arithmetic necessary to compute results and ways to consider cost. Their sample study of a circulation system illustrates most of the methods they have discussed.

While the previous references provide an interesting historical overview and details on some of the methods, the best general guidance comes from Librarians' Handbook for Costing Network Services, a 1976 publication, from WICHE.[33] This brief report provides a method for evaluating network services in light of what an individual library needs. The process of deciding whether alliance with a network is beneficial is outlined logically and in reassuring detail. An input-process-output model is used to describe the library. Inputs are the staff, books and equipment, process is what is done with these within

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[33] Librarians' Handbook for Costing Network Services, Project No. 475AH50102 of HEW, Office of Education, Division of Library Programs, (Boulder, Colorado: WICHE, 1976), 31 p.

the library and outputs are the services such as circulation, reference and preservation of materials. As in Dougherty and Heinritz, possible techniques are presented; here advantages and disadvantages are also listed so that a manager can quickly see which techniques will apply in his situation. The process of introducing network services into the library is discussed, with special emphasis on staff and management attitudes. Qualitative, as well as quantitative, factors are considered in each step of the process. Any library manager confronted with a decision to join a network should begin by consulting the Handbook.

Scientific management, or the broader field of systems analysis, is useful for libraries because it provides a systematized way of looking at a library or part of a library. There is a need for such a careful examination in this situation because the director must know how Neill Public Library functions now in order to consider a change either to a new in-house routine or to computerized acquitition and processing. The best models to follow for this study were found in Dougherty and Heinritz, Dennis and the Librarians' Handbook. The Handbook gives a general direction to the study. Dennis's methods are the most applicable to Neill because they are designed for a small public library. Dougherty and Heinritz provide complete examples of charts which are helpful to follow in designing forms to use at Neill.

NETWORKS AND CENTRALIZED PROCESSING

The decision for Neill Public Library to contract with Holland involves both the question of affiliation with a centralized processing center and affiliation with a network. In the beginning, at least, Neill's relationship with the Network will be essentially limited to use of it as a centralized processing center because only acquisition and processing will be done. Therefore reading on the advantages and disadvantages of processing centers is

pertinent. Of the processing centers described in the literature, many of the earlier ones do not use computers; however, their comments on the effects of centralization are still relevant. The writer also looked for some background on what is available from networks generally and how to evaluate them. There is little substantiated evidence to demonstrate whether network services are actually more cost-effective than in-house operations. This is partly because there are so many variables involved, both quantitative factors of speed and dollar cost and the more elusive questions of quality of service. Any system adopted must measure up on all three areas of speed, cost and quality.

Advantages and disadvantages of centralized processing are enumerated by several writers. Welch, in an unpublished research paper done at the University of Denver, lists the following advantages of centralized processing: discounts are available in batch ordering, cataloging staff is more expert, no revisions are needed and the librarians are freed for more public services. Possible disadvantages she mentions are: the library cannot control subject headings, the local library may have to lower its standards for cataloging if the centralized catalogers are not expert in local needs and there may be a delay on receiving materials.[34] Hendricks' study[35] also lists as advantages the economy of cataloging each title only once and of buying expensive bibliographic materials only once. He too feels that a center may be slower than in-house cataloging and notes that the products will probably be standardized so that a library will not have the same cataloging that it has previously used. In this case, he asks how much change will be necessary to make the old catalog

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[34]Sharon Louise Welch, "A Study of Methods to Determine the Feasibility of a Centralized Processing Center for School Libraries" (M.A. paper, University of Denver, 1967).

[35]Hendricks, Comparative Costs, p. 26.

cards and previously processed books conform with the new ones. He also questions what will happen if the processing center is subsidized and the source of subsidy withdraws support.

In a study of the Northern Colorado Processing Center, Lynch adds the advantage of greater uniformity of catalog contents so that sharing among libraries in an area is easier.[36] He brings up one new and interesting disadvantage, stating that local librarians will not become familiar with materials in their collection through cataloging and processing them. Thompson and Madison, surveying criticisms which are directed against centralized processing centers, found no evidence to show that cost decreases as larger quantities are processed.[37]

Peter Hiatt, discussing processing centers for public libraries, brings up several relevant questions.[38] How much does it matter whether a local staff member has cataloged a book and therefore become fimiliar with it? Can changes in subject headings be made locally? If so, will they be too expensive? If not, who will interpret the catalog to the user? He states that studies do not demonstrate that cooperative cataloging is cheaper and that there is often a considerable time gap between the ordering and the receipt of materials.

Seven years after his study of centralized processing, Donald Hendricks comments on processing centers again.[39] He feels that a good processing center

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[36]Michael Patrick Lynch, "Northern Colorado Processing Center: An Appraisal of Procedural Changes Effective July 1, 1963" (M.A. paper, University of Denver, 1963).

[37]Ann Thompson and Marian Madison, "A Study of Criticisms Occurring in Centralized Processing Centers" (M.A. paper at the University of Denver, 1969).

[38]Peter Hiatt, "Cooperative Processing Centers for Public Libraries," Library Trends 16 (July 1967): 78.

[39]Hendricks, A Report on Library Networks (University of Illinois: Graduate School of Library Science Occasional Papers #108, 1973).

requires good public relations with libraries and a great deal of money, usually from an outside source, for the initial investment. He attributes the failure of the Colorado Book Processing Center in 1972 to the centers being too slow, the costs being underestimated and the members not giving sufficient interest and commitment. He does not recommend processing centers; instead he thinks that libraries should buy computer-produced card kits and have their local, less expensive labor do the processing.

On the other hand, Carl Cox has the opposite opinion about any change to the cards received from a centralized source:

> Any attempt to doctor the cards received from the centralized agency will prove more costly from the standpoint of the cooperating library and may well defeat the plan eventually.[40]

Cataloging services which are currently available from automated networks are described by Maurice Freedman in "Automated Network Catalog Products and Services."[41] This article is particularly helpful to the reader unfamiliar with computers because explanations are fairly elementary. Line-printer-produced catalog cards are the most common cataloging product, according to Freedman, but other possibilities offered by some networks are: on-line access to the computer, computer-produced/photo-composed book catalogs and computer-based microforms. Freedman also published "The Automation of Cataloging--1976" which focuses on OCLC and WLN.[42] Although somewhat more technical, his description of how the two networks manage data gives background information so that intelligent questions can be asked.

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[40]Carl R. Cox, "Centralized and Cooperative Cataloging," News Notes of California Libraries 50 (April 1955): 357.

[41]Maurice J. Freedman, "Automated Network Catalog Products and Services," Journal of Library Automation 9 (June 1976): 145-55.

[42]Freedman, "The Automation of Cataloging--1976," Library Trends 25 (January 1977): 703-21.

Other articles affording basic information on networks are "The Washington Library Network" by Franklin and MacDonald[43] and Reed's "The Washington Library Network's Computerized Bibliographic System."[44] Franklin describes the progress which has been made in cooperation through the Network. The Resource Directory System produces catalog products for eight public library systems and the State Library and prints a quarterly directory of holdings which is sent to a number of other libraries. The On-Line Bibliographic Data Base System, now being developed, will provide access to the information in the resource directories. He makes the point that a network's potential lies in great measure with the way local library administrators decide to use the network. The network is a tool; its creativity depends upon the user. Reed also gives a brief history of the library cooperation within the state, beginning with the establishment of the Pacific Northwest Bibliographic Center in 1940. The state network, to be co-ordinated by the state librarian, was proposed in 1967. The network decided to develop a new system because none of the systems in use could create records in the MARC*II format desired. The network's eventual goal is to provide all possible centralized services for all types of libraries; most previous systems have either been for one library or for only a few functions in a number of libraries.

In an article about computerized data processing costs, Griffin cautions against comparing costs from different libraries, a point which has been made by other sources. He feels that the advantages of a computer are its ability to use the same information in different ways, while storing it only once and

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[43]Ralph W. Franklin and Clarice I. MacDonald, "The Washington Library Network," Special Libraries 67 (February 1976): 84-90.

[44]Mary Jane Pobst Reed, "The Washington Library Network's Computerized Bibliographic System," Journal of Library Automation 7 (September 1975): 174-99.

its ability to be rapid and accurate. He also suggests that, as a change to automation is considered, the library should carefully examine its own products, such as catalog cards, to see if their present format is really the most appropriate; such a change may also be a good time to alter the catalog cards.[45]

A general approach for deciding on a change to a centralized system is suggested by D.W.G. Clements.[46] His method is to begin with a list of all the library's standard operations which might be affected by the change. A way must be devised to measure units of service so that the library director can relate costs to units of output or service provided. In considering an alternative automated system, the director must consider both developmental and operating costs. Clements believes that the study will usually show that benefits other than cost will outweigh the greater dollar cost of an automated system.[47]

"Guidelines for Centralized Technical Services" provides a more detailed guide for evaluating centralized processing.[48] Beginning with the assumption that standardized cataloging products will probably save money, the article recommends trying a centralized service for a period of three years. The state library can be consulted for legal advice and the library should do an annual review of costs. Prior to signing a contract the library should discuss a number of points with the center. What is the responsibility of the library to the center and of the center to the library? What is the line of authority

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[45]Hillis L. Griffin, "Estimating Data Processing Costs in Libraries," College and Research Libraries 25 (September 1964): 400-03.

[46]D.W.G. Clements, "The Costing of Library Systems," ASLIB Proceedings 27 (January 1975): 98-111.

[47]Ibid., p. 107.

[48]"Guidelines for Centralized Technical Services," Library Resources and Technical Services 10 (Spring 1966): 233-240.

between the head of the center and the library? Is book selection to be done by the librarian? What is the scope of the center's service? What are the channels of communication for complaints and suggestions? What will be the procedure if the library is delinquent in payment? There should also be agreement on catalog format and on a regular schedule of meetings for discussion of policy.

One of the thoroughly-planned examples of a change to automated acquisitions is given in Ruth Carter's account of the automation of acquisitions at Parkland College.[49] Ms. Carter was Head of Technical Services in 1971 when the system was adopted. Full implementation of the system, which generated multiple order cards, purchase orders, overdue notices to venors and budget statements, took nine months. She found that the new acquisition method was faster and more accurate, but involved more paperwork. The reference department was helped by having a weekly updated list of materials on order. Clerical work did not decrease but changed from manual bookkeeping to checking the machine system for accuracy. This case study is helpful because it includes an unusually complete description of how the planning for change was done. Many of the planning charts and time considerations would apply to other libraries considering a similar change.

Several writers have more general advice about evaluating network services. Fasana warns to only compare the costs of producing similar products, not to compare the costs of discrete processes, which may not produce the same products.[50] One must also consider qualitative factors of reliability, services

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[49]Carter, "Automation of Acquisitions at Parkland College," Journal of Library Automation 5 (June 1972): 118-36.

[50]Fasana, "Determining the Cost of Library Automation," ALA Bulletin 61 (June 1967): 656-61.

available and growth potential. Jacob advises the decision-maker to have a clear idea of how the costs of an automated library system are derived.[51] For purposes of comparision costs calculated in time units will be more meaningful than dollar costs. Costs should be clearly defined; do they include overhead, equipment and man-hours? The library manager should consider how a new system will use the skills of her staff. In judging the feasibility of establishing a centralized processing center for a school district, Darling considers some of the same factors.[52] First the individual schools must know current processing costs. Then future growth can be predicted as well as how long it will take to pay off the initial investment and what extra services may be added as subsidiary benefits.

In considering a change to either a simple centralized processing center or the more involved affiliation with a network which will probably include centralized processing, the most frequently stressed advice is to plan ahead. This planning must always begin with a careful examination of the current in-house method and calculation of dollar and time costs. The qualitative factors which are important to each library must be weighed also. The next step is to understand how the center or network operates, how it figures costs, what mechanisms will be available for adjustments to complaints and exactly what services it will perform. With this information, a library manager will be able to make a more realistic decision.

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[51]Mary Ellen Jacob, "Standardized Costs for Automated Library Systems," Journal of Library Automation 3 (September 1970): 207-17.

[52]Richard Darling, "Is Central Processing for You?," Library Journal 91 (December 15 1966): 6153-56.

METHODOLOGY

Before describing the study, it is necessary to define the more commonly used terms as they are understood in this paper.

Acquisitions - all steps performed from the consideration for purchase to the placing of the book on the shelf to be classified.

Cataloging - selection of a Dewey classification number and Sears subject headings for the book.

Processing - all steps performed on the book from the time it is cataloged until it is ready for circulation.

Ready for circulation - the book is in the appropriate place in the shelving area awaiting placement on shelves open to the public

Requests - books for which a patron has filled out a form asking that the book be purchased.

Books - volumes, not titles, were counted in this study because many steps of processing must be applied to each volume and, to keep the language consistent and data-gathering simpler, volumes were the units measured throughout the study.

Labor cost - salary calculated on an hourly rate with adjustment for benefits.

The study was designed in consultation with Alice Blackburn, library directory. The staff was also very helpful in giving suggestions and in cooperating in the study. A number of factors governed its organization.

1. Because the possibility of a contract with WLN was responsible for the initiation of the study, most of the variables to be examined will be those to be affected by a change to a Network contract.

2. Because an alternative possibility is an improved in-house system, some additional variables only pertaining to Neill Public Library's procedures will be examined.
3. To overcome doubts and possible resentment about the study, the staff should be involved as much as possible in the design and implementation of the study.
4. To save staff time the forms should be as simple as possible to use.
5. To give the information needed, the forms should be designed to yield acquisition and processing time/book; acquisition and processing time/person; time/acquisition and processing task; total acquisition and processing cost/book; total cost/acquisition and processing task.
6. Because processing is only done at intervals during the day, a relatively long observation period is needed.
7. Because cataloging is only done at intervals during the week, a relatively long observation period is needed.
8. Because ordering is often done in large batches followed by periods of no ordering, the observation period will have to be chosen to coincide with the placing of a large order.

The variables to be studied were identified by comparing acquisition and processing as it is now done at Neill with acquisition and processing as it would be done under contract with Holland Library. Through observation and interviews with the Neill staff, information was gathered and the resulting flow chart was shown to Mrs. Blackburn for correction. After her comments had been incorporated, a final flow chart was drawn. A flow chart for the proposed procedure as it would be done at Holland was drawn after consultation with representatives of the Washington Library Network and with Holland staff. Holland Library began using the Network processing services in early October and the

writer attended the initial training session for their staff, an experience which provided further clarification of the process as it would be done under contract with Holland.

Comparison of the two flow charts indicated that the following variables, in approximate order of their importance, should be examined.

At Neill Public Library:

1. Number of dollars spent on acquisition and processing supplies and equipment each year.
2. Number of dollars spent on salaries and fringe benefits for acquisition and processing staff each year.
3. Number of dollars spent on purchase of items for collection each year.
4. Number of dollars required to acquire and purchase an item (exclusive of purchase cost).
5. Number of staff hours spent on discrete tasks of acquisition and processing each week.
6. Number of items purchased each year.

At Holland Library and the Washington Library Network:

1. Number of dollars each month Neill will be charged by Holland as a user's fee.
2. Number of cents Neill will be charged for each unit of supplies.
3. Number of cents Neill will be charged for each transaction with the Network.
4. Number of dollars each hour Neill be charged for staff time at Holland.
5. Number of hours of Neill staff time required to acquire and process through the Network at Holland.
6. Number of dollars required to acquire and process a book through contract with Holland.

Comparison of the flow charts also identified eleven steps in the acquisition and processing procedure which would be affected by a change to the Network. Figures for time and cost on each of these steps were obtained from three work studies.

Non-print materials were not included in the study because Mrs. Blackburn felt that Neill's proportion of non-print materials is too small to consider. The number of square feet devoted to acquisition and processing at Neill was not considered because it was not clear whether there would be a different allocation of space. If Washington Library Network services are used, the Neill staff will do somewhat less typing. It is impossible to tell whether this would be enough less to require fewer typewriters. However, the rest of the space will be used, as it is now, for storage before final checking and for book covering. One cupboard measuring 1 foot by 3 feet by 18 inches will be freed for other use. Qualitative data to supplement that found in the literature search was gathered from interviews with Holland and Neill staff.

Since all the money in the 1977 book budget had been spent for the year, no ordering activities were going on and the writer had to postpone a study of acquisitions until the next fiscal year.

The final step in processing at Neill, cataloging, was examined through a simple work study from October 10 to November 18. A flow chart of cataloging was not drawn because the writer, who was doing about half of the cataloging, was learning and did not follow a firmly established routine. The other cataloger, Alice Blackburn, was in the process of turning most cataloging over to the writer and only worked on the more difficult books. Cataloging is done at the circulation desk which is near the shelf list and main card catalog, and interruptions are so frequent as to seriously hamper the efficiency of the process. Comparison of the cataloging process as it is done at Neill with the

way it would be done at Holland, according to Washington Library Network and Holland personnel, showed that one factor to consider would be the proportion of books which would come with a partial or complete cataloging information. Many books already come with partial cataloging either on cards from jobbers or in Cataloging in Publication format, and Mrs. Blackburn wished to discover what proportion this is of the total number acquired. It was decided to design a diary form to record the following information: number of books with CIP data, number cards from jobbers with partial cataloging, number with neither CIP nor cards, number of minutes required to catalog each book and number of interruptions to the cataloging of each book. This form gathered data on steps 13 and 14 of the Acquisition and Processing Tasks list on page 39 of this study. A diary form was filled out each time either the writer or Mrs. Blackburn cataloged books. Start and stop times for actual cataloging were recorded. All interruptions were excluded in the time count. It was felt that averaging the times of the skilled cataloger with the beginner would give an adequate picture of the time actually spent and, therefore, of the cost.

A separate examination of the problem of interruption was conducted later. For five separate two-hour periods the writer cataloged without interruption. This was done on Sundays when the library was closed. The time and cost per book for uninterrupted cataloging was then compared with the corresponding figures for ordinary interrupted cataloging.

To examine processing, several techniques were considered. The form of the study had to lend itself to the rather informal working situation in the small library with close relationships among the staff based on long-standing friendships, and it had to yield unit times and costs. A time and motion study was judged unnecessarily detailed for this situation. Any type of observation study, in which the writer would observe the staff at work, was judged too

threatening to the staff. The diary form was chosen because it would give information on unit times and costs within an acceptable error level, according to the Librarian's Handbook,[53] and because staff members would feel more comfortable filling it out in the privacy of their own workspace. The advantage of greater staff comfort was felt to offset possible disadvantages of subjectivity and inaccuracy. The forms were to be kept simple and instructions were given to minimize distortion of results due to the process of data collecting itself. The writer also began a brief journal of staff reactions to the study as soon as she introduced the idea to her fellow workers.

Each of the staff members who process materials was interviewd as she worked and an individual flow chart was drawn of the steps she followed. This also provided an opportunity to talk with each worker about the study, soliciting her comments and answering questions. Checkpoints and batch versus individual processing were noted. The flow chart was given to the processor to be carried with her as she worked for two or three days. When she had checked it for accuracy, she returned the chart to the writer who drew a corrected flow chart.

A comparison of the individual flow charts showed that there was little difference in the routines used, although some of the unique variations might be incorporated into a new standardized procedure if that was needed at the end of the study. It became obvious that one of the salient features of the work, however, was that it was frequently interrupted, so the diary form was designed to count interruptions. A diary form was designed which did not disturb the work flow. The form measured only work done at the typewriter and only work relevant to processing. Time spent setting up the typewriter, correcting mistakes and clarifying processing instructions was counted. Time

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[53] Librarian's Handbook, p. 11.

spent on discussions of performance of other library work and social coversation was not counted. It was pilot-tested for three days by three of the workers and on October 10 the diary study began. Instructions were posted on the shelf of books to be processed and also included on each diary form. Forms were placed directly below the processing shelf and during the first week staff comments were frequently solicited. Completed forms were collected before work each Monday morning.

On November 4, after four weeks of study, the writer realized that no provision had been made on the forms for supplies used. After consultation with a processor and Mrs. Blackburn, an addition was designed, which was added to all the rest of the processing diary forms and data was collected on supplies for two weeks. The processing study ran six weeks, ending November 18.

At the same time a check was run on the length of time a book is delayed in storage between unpacking and being placed in the shelf ready for circulation. While not essential to the acquisition and processing study, this investigation provided an additional check of the efficiency of processing as it is now done at Neill. A colored slip with the current date written on it was placed in each book as it was unpacked. The slip remained with the book until its final checking before going into circulation. At that time, the slip was removed and the following information was added to it: the date and whether a request had been placed on the book. Because this study involved less staff inconvenience, it ran for about twelve weeks, beginning October 3 and ending December 31.

In early January the writer reported to the staff on the results, thus far, of the study and posted a model processing flow chart. At this time she explained the nature and purpose of the second phase, the acquisitions study.

Acquisitions work is not steady but is concentrated around the preparation of an order so the acquisitions study was planned to coincide with the first large order of the new fiscal year, beginning January 1, 1978. Steps 2, 3, 4, 5, 6, 7, and 10 from the Acquisition and Processing Tasks list on page 39 of this paper were to be examined in this study.

The staff was already familiar with the project from the processing study, so, except for the new children's librarian, only a small amount of explanation was necessary. Forms similar to those used in the processing study were designed to give times of starting and stopping work and the number of volumes completed. A form incorporating all seven steps would be too long so the acquisition process was examined in three parts: searching for bibliograhic data, clerical work, and typing orders and writing vendors. This particular division was chosen to correspond with the division of labor among the staff. Searching refers to step 2; only the director and the children's librarian do this work. Clerical work covers steps 3, 4, 5, and 6. Step 5 is a decision-making process, a fact which the writer did not adequately understand when designing the forms; it is done by the director but the other steps in the clerical work form are done by clerical staff. Typing orders and writing vendors covers steps 7 and 10, both of which are done by the secretary.

The forms had to be ready for use when work began on the first large order of the year. The director advised the writer that work on the order would only encompass about three weeks so it was felt that there was not time for a pilot study and none was conducted. The study began on January 15 and ran till February 6. Forms for searching and clerical work were placed on the director's desk; she gave each staff member the appropriate form when assigning the day's work or took one herself. Forms for typing orders and writing vendors were

on the secretary's desk. Writing vendors was the only job which could not be done at this time; it was done after the order came in and had been checked.

On the first day of the study the writer talked with each staff member involved, going over the forms. Every few days during the study she inquired of individuals about the problems with the study or the forms. Only one difficulty developed. The children's librarian joined the staff on January 15 and, being busy learning new routines, did not participate in the first ten days of the study. However, when she began considering books for purchase, she filled out searching and clerical work forms. Her method of selecting books was different from that used by the director and described in the flow charts earlier in the study. Her data did not fit into the categories stipulated on the forms and it was finally decided not to include her information in the study. Therefore, the study covers only adult books, which use about two-thirds of the budget.[54]

In early Febraury the writer again visited Holland Library to watch the cataloging staff at work on the WLN terminals, which had been in operation for about three months. At this time, through observation and interviews with the staff, she gathered the rough estimates of time and cost for WLN work which are used in the study.

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[54]1978 budget for adult books: $11,191; for children's books: $5,525.

RESULTS AND INTERPRETATION OF RESULTS

Because this study had the dual purpose of recommending an improved in-house system and comparing current costs with projected costs under the Network, some results were relevant to only one purpose and others, to both. As the time went on, more uses were found for the study. The form in which data is presented is governed in some case by these new functions it can serve.

Several factors affected the accuracy and completeness of the entire project. Because the Washington Library Network had not yet developed a final cooperative membership contract, all data about costs, times and even general procedure under the proposed contract with Holland Library is only roughly estimated. However, unless otherwise noted, all figures from Neill Public Library are calculated to three decimal places and rounded off to two. The processing part of the study was done in October and November of 1977; the acquisitions study was done in January of 1978.

With the new year the Neill staff all received raises. All labor costs were computed based on 1978 salaries. This seemed to reflect the current and future situation best. Cost figures from Neill were originally reached by consulting the library's actual record of expenditures for the year 1977. Because the 1978 budget for materials is 9% higher than that for 1977, 9% was added to all expenses for supplies to keep the study current.

The study was originally intended to examine both juvenile and adult acquisition and processing. However, the former children's librarian left in July, 1977 and a new one was not hired until January 15, 1978. During the six-month period very little acquisition and processing of children's material was

done. The new children's librarian had a different method of preparing orders than had been described and flow charted earlier. Since the work study was designed from the flow charts and was well underway when the children's librarian arrived, it was not possible to change the study or to fit her data into the work study forms. Therefore no data on juvenile acquisitions is included in the study. Processing would be done exactly the same way on juvenile as on adult materials, so the processing data is accurate for the entire collection.

After interviews with staff at Neill and Holland libraries and at the Washington Library Network and observations of work at the two libraries, flow charts were drawn to describe the current methods of adquisition and processing.[55] Neill's acquisition and processing is done entirely by staff in-house except for occasional bibliographic searching done by Neill's director at Holland. Eight of the fourteen staff members work on various tasks in acquisitions and processing, with considerable assistance from volunteers. Holland began using WLN terminals in October, 1977 and by spring was using the terminals to input original cataloging and order processing supplies. The Network was not yet offering acquisition services but hoped to do so in April, 1978. Because it was faster, Holland still used an old method of processing, bypassing the Network, for rush orders. No work study was conducted at Holland so figures are, as stated above, approximate. Staff estimated that they get back for correction about 9 out of 50 cataloging entries. They do original cataloging on about a quarter of the books, the very new ones and the pre-1971 books. Time from receipt of the book until it is ready for circulation varies from three to six weeks, according to the staff.

The following steps were isolated as the essential ones in acquisition and processing it is done at Neill. Comparison of the flow charts indicated

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[55]See Appendix A.

that the steps marked with an asterisk (*) are the ones which would be affected by a change to Network services. These are the steps on which a work study was conducted. The unmarked steps would be performed in the same way under the Network contract so they were not examined in a diary study.

CURRENT ACQUISITION AND PROCESSING TASKS AT NEILL PUBLIC LIBRARY

1. Consider for purchase - working either at home or at her library desk, the director reads reviews in current journals, marking materials she wishes to purchase for later typing on order forms by staff.

*2. Search for full bibliographic information
   a. At Neill - the director or other staff search in Books in Print for bibliographic details necessary to place an order.
   b. At Holland - the director searches more extensive sources for bibliographic detail.

*3. Type order form - staff or volunteers type bibliographic information about the item on a p-slip or a three-part 3" x 5" order form.

*4. File in order file drawer - the p-slip or one piece of the three-part form are filed by staff or volunteers according to title in the order file drawer at the circulation desk.

*5. Pull from order file drawer - the director pulls slips from the order file drawer to begin the ordering process.

*6. Check current holdings
   a. At Neill - staff or volunteers check the shelf list of the card catalog to see if the item is already in the collection.
   b. At Whitman County Library - staff checks a partial file of the Whitman County Library collection to see if the item is in that collection.

*7. Type order and mail - staff types full bibliographic information on a three-part order form and mails a copy to the vendor or publisher.

8. Unpack books - director or staff unpacks the books in a back room.

9. Check shipment
   a. With packing slip - the person unpacking the books checks each item against the packing slip.
   b. With order form - the unpacker also checks each item against Neill's copy of the original order.

*10. Write vendor/publisher requesting change or correction - staff member writes to the appropriate agency if there are mistakes.

11. Match order slip, card kit and book - staff places the order slip and the card kit, which has come from the vendor and is on file, in the book. This is done at the time the book is unpacked if there are no mistakes. Otherwise, it is done when the correct item arrives.

12. Put books on shelf to be classified - the director places new books on shelves in the back room, arranging them by fiction and non-fiction and by title under these categories. Books which patrons have requested are placed in a separate area.

*13. Catalog books - the director or a staff member selects a Dewey Decimal Classification number and Sears subject headings for the book. This is done at the circulation desk where the cataloger can consult the shelf list and card catalog, which function as an authority file. Books are then placed on the Ready to Process shelf.

*14. Process books - staff members or volunteers select books from the Ready to Process shelf and prepare them for circulation.

15. Cover book, glue pocket and label to book - This step, performed by staff or volunteers in the backroom is part of the processing routine but is mentioned separately here because it will have to be done the same way even under contract with the Network.

16. Check books and cards - in the back room, a staff member checks each book and card set for error, returning it to the processor if changes are needed and placing it in the Ready to Shelve area if no changes are needed.

To further clarify the way acquisition and processing is done at Neill, Figure 1 shows the layout of the work areas in relation to the public areas of the library. This is included because there was some question as to whether the work was being done in the most appropriate places or whether it could be more efficiently done elsewhere. Only the areas where some steps of acquisition and processing are done are shown. The map is not drawn to scale. Numbers refer to steps from the Acquisition and Processing Tasks list above.

A glance at the map shows that steps 1, 2, 4, 5, 6, and 13 are performed in the public area of the library where they are, naturally, constantly interrupted. Since it is the policy of the director and the practice of the staff to put service to the patron first, any staff member working on these tasks is subject to reference questions at any time. Steps 2, 4, 5, and 6 are easily interrupted and resumed but steps 1 and 13, reading reviews and cataloging,

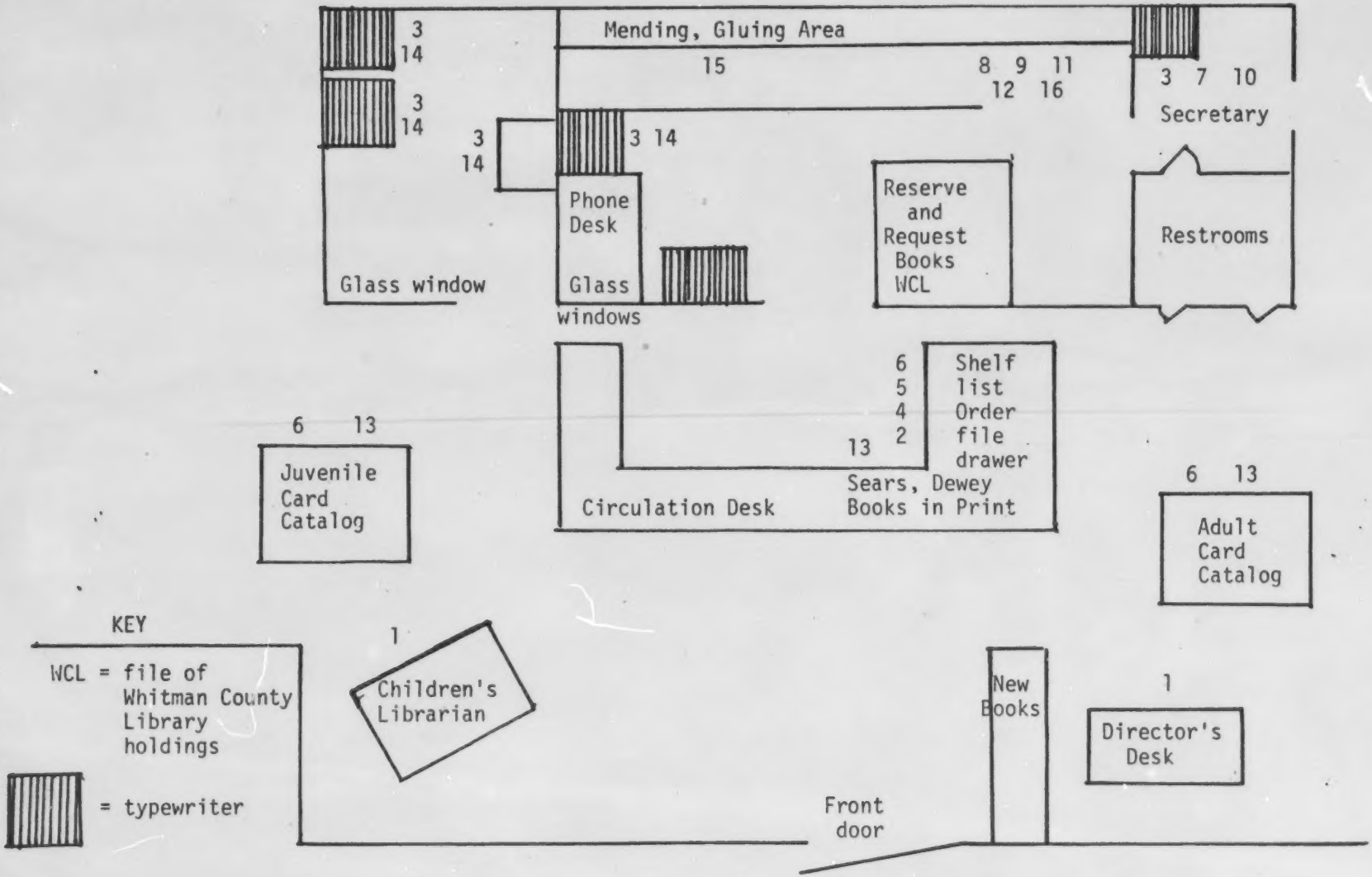


FIGURE 1

MAP OF ACQUISITIONS AND PROCESSING TASKS AT NEILL PUBLIC LIBRARY

require a continuous train of thought. Breaks in these tasks seriously impair efficiency. Step 14, processing, is done around the corner in a less public area but these workers are also called upon, especially by the rest of the staff, to fill in at busy times on the desk or to consult about other library matters.

In light of this interruption problem, data was gathered on the range and length of interruptions in all nine steps of acquisition and processing to be affected by a change to the Network. It was felt that interruptions were an important factor in cataloging and processing, the part of the study that was done first. The same design, with provisions for recording interruptions, was used for the later acquisition study because it was familiar to the staff.

In Figure 2, an illustration of the interruption problem, Acquisition refers to steps 2-7, Cataloging to step 13 and Processing to step 14. The number of interruptions for each section of the study was divided by the number of volumes involved in that section to give the average number of interruptions per volume. The total number of minutes spent on interruptions during each section was divided by the number of interruptions in that section to give average length of interruptions. All interruptions were listed and the shortest and longest selected to give the range of length of interruptions. The five interruptions longer than twenty minutes were due to coffee breaks. Interruptions in the range of ten to twenty minutes were to answer reference questions from patrons, while shorter interruptions were either to help at the circulation desk or to consult with another staff member.

It is interesting to note that the most interruptions occur in cataloging, step 13, and the least in acquisitions. The writer had expected the most interruptions to occur in those jobs which were done in the public areas, and

Description of work	Average number of interruptions per volume	Average length of interruptions (minutes)	Range of length of interruptions (minutes)
ACQUISITIONS	.05	4.33	1 - 10
CATALOGING	.73	3.1	1 - 34
PROCESSING	.46	13.52	1 - 90

FIGURE 2

NUMBER AND LENGTH OF INTERRUPTIONS TO ACQUISITIONS AND PROCESSING TASKS

this assumption is verified in the case of cataloging. The very small number of interruptions to acquisition tasks, many of which are also performed in the public area, is probably due to the fact that these are much shorter jobs. About seven minutes is required to catalog a volume whereas slips for about twenty volumes can be filed in ten minutes, making the number of interruptions per volume very small. The longest interruptions happen during processing, step 14. Staff are called away from the typewriters to do other jobs and, because the typewriters are some distance from other areas, it takes longer to break away from the interruption and return to the typewriter.

Because the most interruptions occur in cataloging, this problem was examined in more detail, as shown in Figure 3. Alice, the director and an experienced cataloger, and Nancy, the writer and an inexperienced cataloger, were sharing the work about equally during the cataloging work study. Alice's experience enables her to catalog much more rapidly. Times and costs for the catalogers are averaged to get a fairly realistic picture of actual costs. In five separate sessions on Sundays when the library was closed, the writer' s time was measured in uninterrupted cataloging. This short study was done in February, 1978. Alice was no longer cataloging and Nancy had had four months of experience so her shorter average time is due both to lack of interruptions and to experience. However, this small amount of evidence suggests that uninterrupted cataloging is more rapid. No study was made of accuracy, though that may be a factor to consider also.

To return to the overall picture of acquisition and processing, the three work studies in acquisition, cataloging and processing yielded time and cost figures for each staff member and for each task. A work distribution sheet, Figure 4, illustrates the sharing of jobs among the staff. Task numbers refer to the number assigned on the Acquisition and Processing Tasks list

	INTERRUPTED CATALOGING		UNINTERRUPTED CATALOGING	
	Average time per volume (minutes)	Average labor cost per volume	Average time per volume (minutes)	Average labor cost per volume
Alice	4.80	$0.91	-----	-----
Nancy	8.68	$0.61	4.73	$0.33
Totals averaged from two workers	6.74	$0.76	4.73	$0.33

FIGURE 3

EFFECT OF INTERRUPTIONS ON CATALOGING EFFICIENCY

Tasks	Annual labor costs	Alice $11.25/hr		Patty $6.17/hr		Kelly $5.01/hr		Zoe $5.01/hr		Barbara $6.17/hr		Harriet $4.39/hr		Nancy $4.39/hr	
		Hours	salary	Hours	Salary	Hours	Salary	Hours	Salary	Hours	Salary	Hours	Salary	Hours	Salary
2. Search for full bibliographic information	$205.76	1.80	$20.25									1.48	$6.50		
3. Type order form	$108.92									.75	$4.63	2.17	$9.53		
4. File in order drawer	$ 12.30					.17	$ .85					.17	$ .75		
5. Pull order	$129.84	1.50	$16.88												
6. Check current holdings	$ 53.61	.25	$ 2.81					.83	$ 4.16						
7. Type and mail order	$104.61							1.58	$ 7.92	.92	$5.68				
10. Write vendors for corrections	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13. Catalog	$1482.38	10.88	$122.40			.47	$ 2.35							15.48	$67.96
14. Process books	$1090.38			15.48	$95.51	6.76	$33.87	12.03	$60.27	.34	$2.10				

FIGURE 4

WORK DISTRIBUTION SHEET

above. Time figures for steps 2 through 10 are the number of hours spent on each task during the study, which covered one large order involving 13% of the books to be ordered during the year 1978. Time figures for steps 13 and 14 were computed on a weekly basis by dividing the total number of hours of work during the six-week study by six. To compare with the figures for the acquisition study, the weekly averages were multiplied by 52 to get annual figures. The figures in the chart are 13% of the annual amounts. This more complicated calculation is necessary because the tasks are performed differently, with cataloging and processing a steady routine all year and acquisition centered around a few large orders. Salary figures are adjusted for benefits. The leftmost column gives the annual costs for each task. The order sent out during the acquisition study involved $2938.10 or 12% of the $16,716 in the 1978 book budget. Therefore cost figures for steps 2 through 10 are multiplied by 12% to get annual figures. Cost figures for steps 13 and 14 are multiplied by 52 to get yearly results. The children's librarian does not appear in this chart, as she was not included in the study; however, normally she would be included, bringing the number of staff involved in acquisition and processing up to eight. Step 10, writing the vendor for corrections, should have been included in the study but was not accomplished before the study ended.

The work is widely distributed with most people doing a number of jobs. This makes for a more enriched work situation and is a suitable way to handle the tasks because steps 2 thorugh 10 are short jobs which only occur occasionally and can be done by whoever is free at the time. Steps 13 and 14 occur all year and consume by far the greatest amount of time and money. Help with these steps, particularly if less expensive and time-consuming, would be desirable.

While Figure 4 shows how work is distributed among the staff, it does not include the contributions of volunteers, who do a considerable amount of the processing. When the city did not give the library an additional professional position as requested, and insisted that the library lean even more heavily on volunteer help, the director asked for data on the amount of work done by volunteers. Four volunteers were processing at the time of the study. Of the 440 books processed during the study, volunteers processed 92 or 20%, saving a considerable amount of money and providing service to the community at no charge to the city. Volunteer help is expected to continue at its present level.

From the information gathered above it is possible to compute the costs to acquire and process a book a Neill Public Library. Figure 5 is grouped into three categories to correspond to the three separate work studies, which involved different numbers of books. The total number of volumes in each study give an opportunity to check on how representative the study is. The acquisition study used $2938.10 or 12% of the $16,716 in the 1978 book budget. The number of books involved is 310 or 13% of the 2300 volumes expected to be purchased in 1978. Therefore, the acquisition study represents 13% by number and 12% by costs of the volumes added in 1978. Because the processing study took six weeks or 11.5% of the year, the number of books purchased in 1977, 2526, was multiplied by 11.5%. This yielded 290, which is very close to the 282 books processed during the study, indicating that the study is representative. The number of books cataloged during the six-week period, 182, is considerably lower than the number processed, 282. This reflects the constant backlog of items to be cataloged (see footnote 1, p. 1).

Labor costs are reached by totalling the number of hours for each worker in the study, multiplying by that person's salary as adjusted for benefits and

Types of work	Number of volumes completed	Labor cost	Cost of supplies	Cost of labor and supplies	Cost of labor and supplies per volume
Acquisitions	310	$79.96	$14.86	$94.82	$ .31*
Cataloging	182	$155.23	-------	$155.23	$ .85
Processing	282	$172.43	$184.25	$356.68	$1.26
				Average cost to acquire and process a volume	$2.42

*plus small additional amount for step 7, not included in study

FIGURE 5

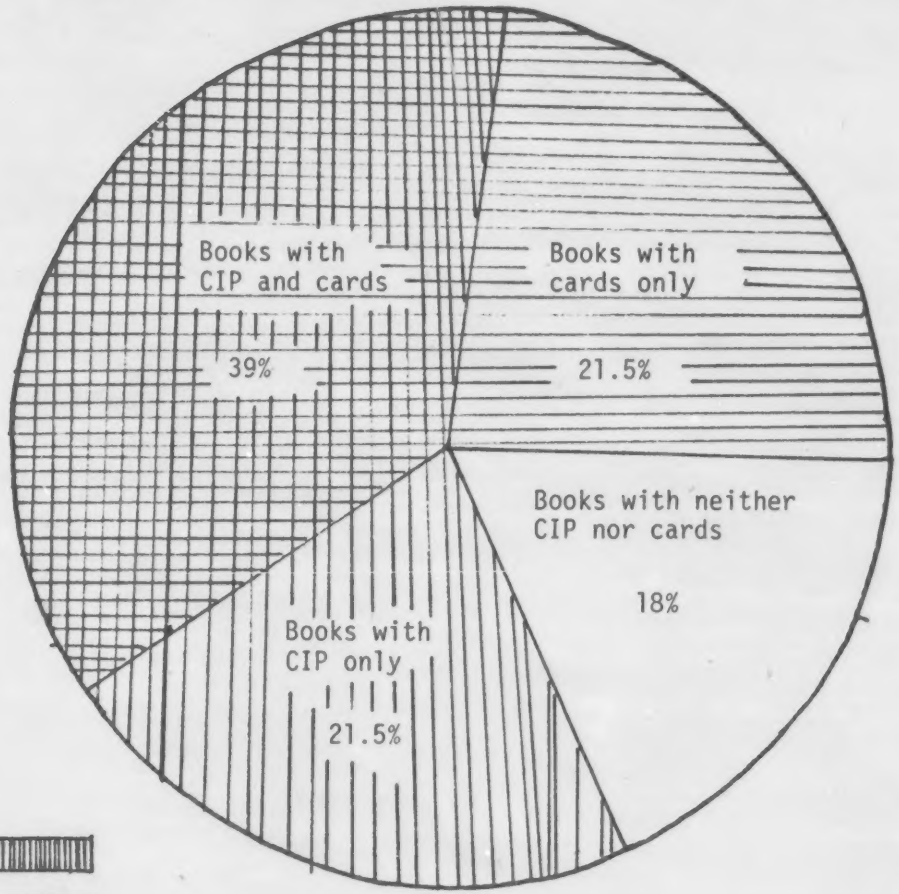
COSTS TO ACQUIRE AND PROCESS A BOOK AT NEILL PUBLIC LIBRARY

adding these amounts for each study. The 20% of the processing done by volunteers is included here, giving, of course, a lower cost figure. It will be noted that the costs to catalog a book here is slightly higher than the cost given in Figure 3. The discrepancy is due to the fact that the Cuttering of fiction books is not counted in Figure 3, which focuses on the problem of interruptions in the longer cataloging tasks. Cuttering is included in Figure 6, however, to give a complete analysis of costs.

Materials costs for acquisition are 13% of the 1978 budget for puchase orders, typewriter supplies for the secretary's typewriter and miscellaneous secretarial supplies. This percentage is used because the acquisition study accounts for 13% of the volumes purchased under that budget. No costs are listed for cataloging supplies. The few pencils used are a minimal expense. The volumes of Sears List of Subject Headings and Dewey Decimal Classification would be kept to check cataloging under the Network so their prices are not considered. The costs of the shelf list and card catalog, also tools used in cataloging, are not considered either as they are not used exclusively for cataloging. Costs for processing supplies are 11.5% of the 1978 budget for cataloging supplies. The cost of typewriter maintenance was impossible to break down between acquisition and processing so it is all included in the cost of processing supplies.

The average cost to acquire and process a book as calculated here is the main quantitative measure which will be used in the decision whether to joint the Network.

One possible difference between the present in-house system and using the Network for acquisition and processing might be the number of books received with catalog cards and/or Cataloging in Publication information. Both the cards and CIP data, which suggest classification numbers and subject



Books with CIP

Books with cards

Books with neither CIP nor cards

FIGURE 6

PERCENTAGE OF BOOKS RECEIVED AT NEILL WITH C.I.P. DATA AND/OR CARD PACKETS

headings, are helpful to the cataloger. If Neill receives few books with either of these aids, the Network contract would be an improvement. Even if the cards provided by WLN are not complete or entirely correct, they would be of assistance. If, however, Neill already receives a large proportion of books with CIP and/or cards, the WLN services are not as important.

Data on the number of books with CIP and/or cards was collected during the work study on cataloging Figure 6 shows that 18% of the books received by Neill have neither CIP nor cards. Fifty-five percent have CIP and 55% have cards. A large number of books, 39%, have both. Either CIP or cards are equally helpful; it is not particularly useful to have both. It appears that Neill already receives a good deal of cataloging assistance in this way. However, the classifications and subject headings are always checked by Neill catalogers and are frequently found to be wrong or inappropriate. They are valuable as a guide but hardly an infallible one.

As shown on the flow chart, (see Appendix A, p. 68), Holland Library sidesteps the Network to process special requests. Neill would probably want to do this too so information was gathered on how many requests Neill handles. A request is a book which a patron or staff member has asked to have purchased. The request slips are stapled to the workslip when the book is unpacked, step 11 of the Acquisition and Processing Tasks. During the study a colored slip with that day's date was placed in each book unpacked. The slip remained with the book until it was checked, Step 16. At that point the checker recorded the current data and also whether the book had a request on it. Slips were first inserted on October 6, 1977 and the last ones were removed on February 9, 1978. The study therefore covered a larger number of volumes that did the work study in processing itself. It showed that of the 449 volumes processed during those four months, 52 or 12% were requests.

Figure 7 compares the time required to process requests and non-requests under Neill's in-house system. The colored slip study yielded information on how long it takes Neill to get a book ready for circulation and how much more rapidly requests are handled. Percentages of books ready for circulation are cumulative. The period of the study is considered to encompass 100% of the books. Because there was not time to follow up every book with a slip, the study was arbitrarily ended on February 9. Some books with slips were undoubtedly still unprocessed at that time. Fifty percent of the requests are ready to circulate within three weeks after being received. It is interesting to note that the percentage of requests decreases and the percentage of non-requests increases as time goes by. This is the result one would hope to find, showing that requests are processed first.

Comparison of the individual flow charts of the four staff members and four volunteers doing processing showed that, although there were some variations in the way individuals did the work, the process was essentially the same in all cases. It appeared that certain key steps should be done in a definite way, however. A model processing flow chart, Figure 8, was drawn to illustrate what seemed the most efficient method. Within this method, the order of most steps is not critical but all phone desk steps should be done at the phone desk, all typewriter steps at the typewriter and so on. As much as possible, batch processing is used, in which the same process is done to a group of books at once. The first step, Selection of books to process, could be facilitated by having the cataloger clearly indicate whether a book is ready to process. When this need became apparent, the cataloger reorganized the backroom with clearly designated shelves for books in each step of the acquisition and processing routine. Checkpoints are noted during the processing; checking at these times makes the work that follows quicker and more accurate. One particularly

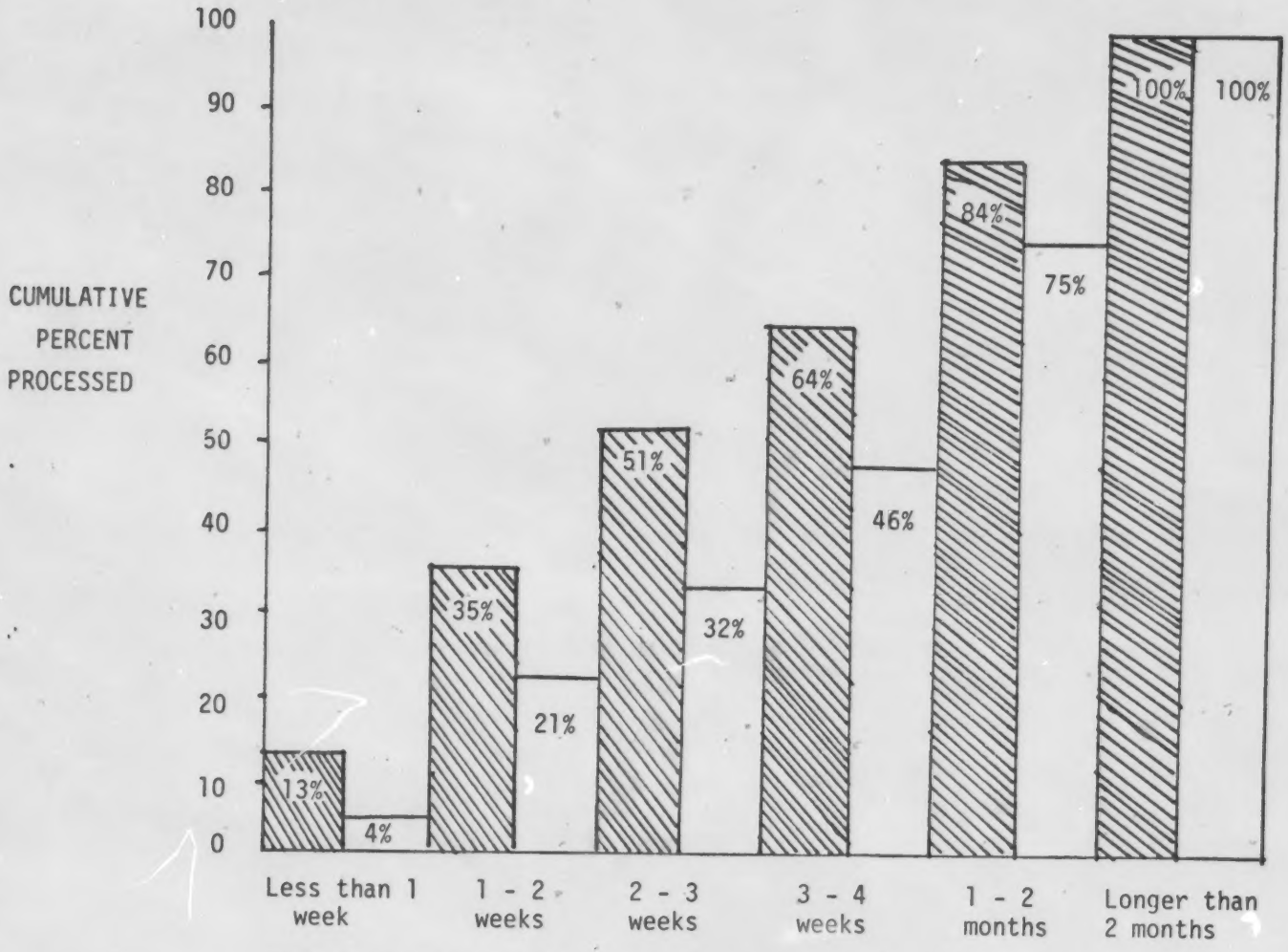
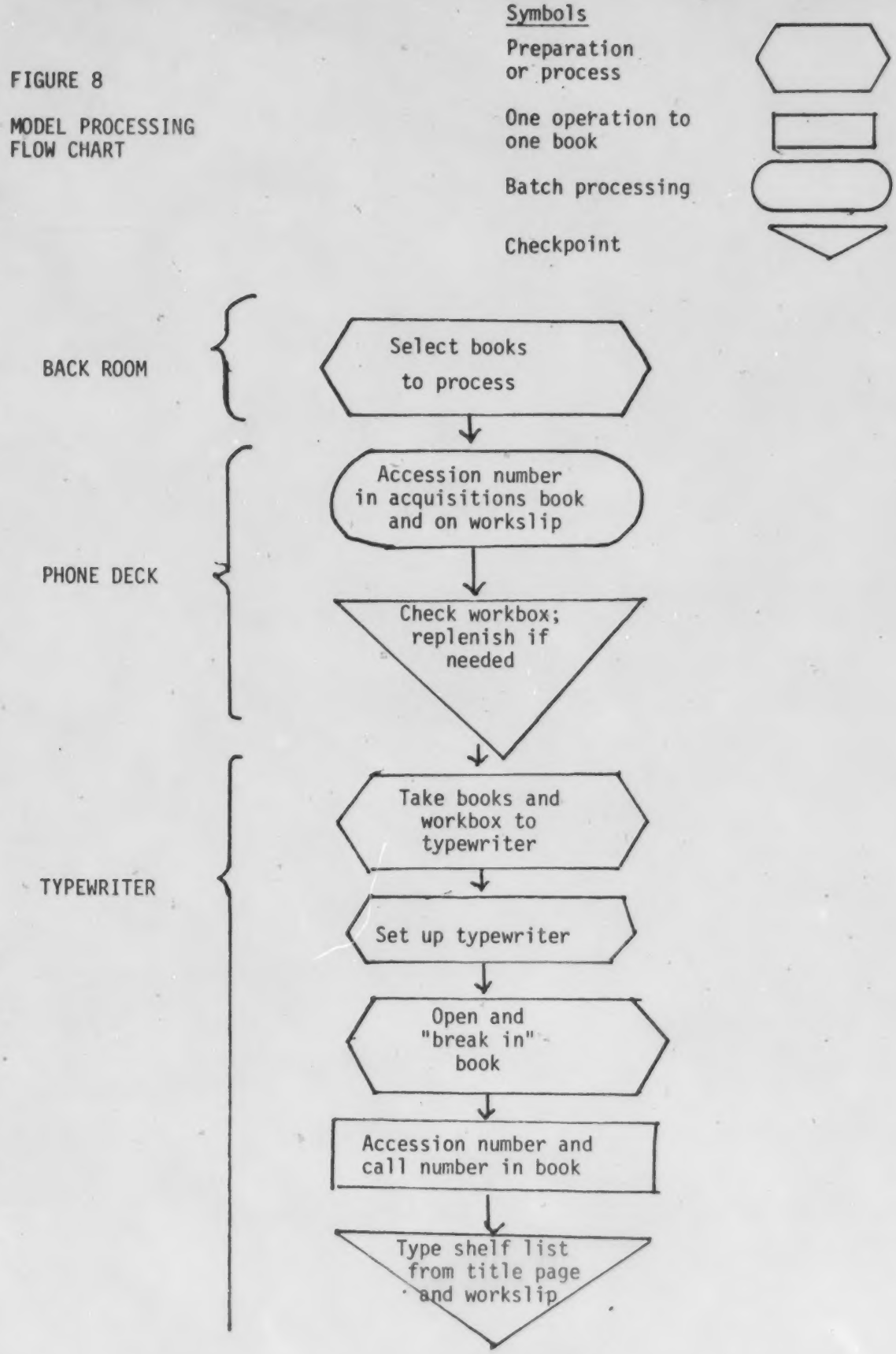


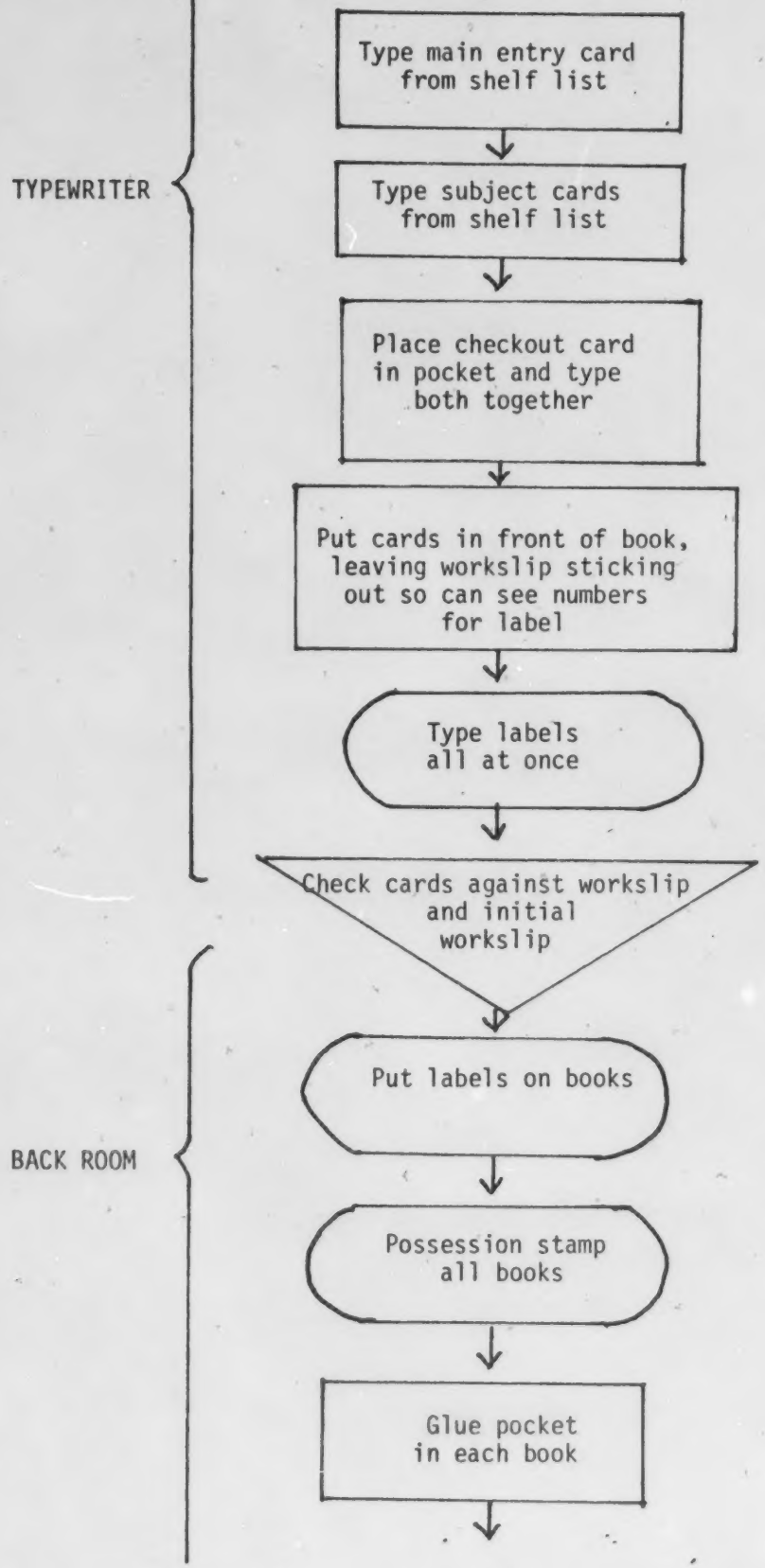
FIGURE 7

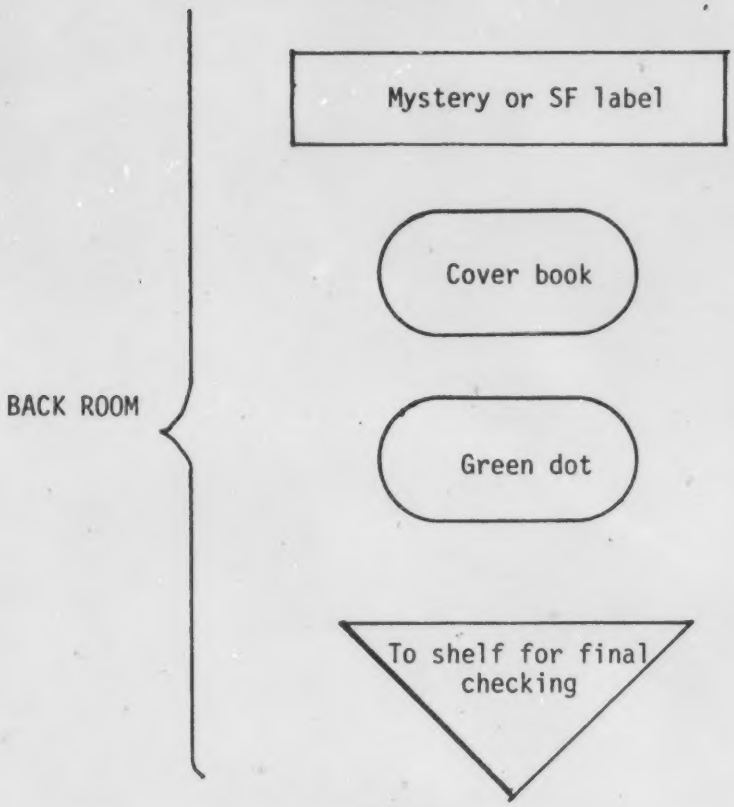
TIME REQUIRED TO PROCESS REQUESTS AND NON-REQUESTS

FIGURE 8

MODEL PROCESSING FLOW CHART




TYPEWRITER
Type main entry card from shelf list
Type subject cards from shelf list
Place checkout card in pocket and type both together
Put cards in front of book, leaving workslip sticking out so can see numbers for label
Type labels all at once
Check cards against workslip and initial workslip
BACK ROOM
Put labels on books
Possession stamp all books
Glue pocket in each book


BACK ROOM
Mystery or SF label
Cover book
Green dot
To shelf for final checking

important checkpoint is that the processor type the shelf list from the title page and workslip of the book. Other cards are then typed from the shelflist and accuracy is preserved. The placing of the checkout card in the book pocket and typing both together is an ingenious procedure contributed by one of the processors which saves an extra fitting of a card into the typewriter and insures that numbers on the two will be correctly aligned. Placing the workslip in the book with the call numbers sticking out and typing all the labels at once are also techniques developed by processors to save time and encourage accuracy. Another important checkpoint is the checking of the cards against the workslip by the processor. This should be done while still at the typewriter so that any mistakes can be corrected without an extra trip back to the typewriter.

Although it was recognized that some problems exist with the acquisition and processing routine at Neill, a control chart giving standard times for each task was not drawn. This was because of probable staff resentment to such data, making it unlikely that any effort would be made to improve times. Also the problems seemed to be due more to understaffing, physical layout and interruption of work flow than to staff inefficiency.

No cooperative membership contract had been drawn up at the time of the study although guidelines had been established by the Network (see Appendix D. p. 84). The procedure to be followed under a Network contract with Holland Library is described in the flow chart in Appendix A. The study of Holland routines was based on three visits and several conversations with staff there and was much less detailed than the study at Neill. Holland is understaffed so that a Neill staff member would have to go to Holland and use the terminal; the travel time of about a half-hour walk and reorientation plus any time spent waiting at Holland while the computer was "down," would be expensive. The

Neill staff member would search the data base to see if the material being considered for purchase is cataloged. If it is, the book and catalog products would be ordered. If not, the cataloger would order the book only and do original cataloging when the book arrives or, possibly, recheck the data base when the book arrives to see if it has been cataloged in the interval.

Cards and books ordered through the Network will arrive directly at Neill, be unpacked, matched and checked there as they are now. Theoretically, no cataloging need be done on books already in the data base. However, if the quality of cataloging is similar to that presently in CIP and on cards supplied by jobbers, a good deal of recataloging would be necessary . Processing would be simplified on books in the data base, with typing limited to changes recommended by Neill catalogers. Estimates indicated that about 10% of the cataloging inputs were returned to Holland by the Network for correction. Original cataloging is done on about a quarter of the books, the very new and those published before 1971, which are not in the data base yet. The work at the terminal is a keypunch job and difficult to do accurately for more than a couple of hours at a time. Neill staff would, therefore, have to make a number of trips to Holland to get the job done as a single person could not hope to work for more than two hours at a time. After cataloging information is put into the interim, or temporary, data base, cataloging products arrive within ten days to two weeks. No acquisition procedures were available to Holland at the time of the study, although they will be ready within a few months. Costs for acquisition are completely unknown, although Network and Holland staff offered estimates for time.

Figure 9 compares acquisition and processing at Neill and as it would be done by WLN under contract with Holland Library. The design of this chart is governed by Network procedures. The process is broken down only into

Types of work	Current inhouse time/title	Current inhouse cost/title	Projected Network time/title	Projected Network cost/title
Acquisitions	6.30 weeks	$ .37	3 weeks	unknown
Processing	6.56 weeks	$2.11	7 weeks	$2.61
Acquisition and processing totals	12.86 weeks	$2.48	10 weeks	$2.61

FIGURE 9

DECISION-MAKING GUIDE:

COMPARISON OF INHOUSE AND NETWORK ACQUISITION AND PROCESSING

acquisition and processing, which includes both cataloging and processing, since the two are all one procedure under the Network. Times and costs are calculated here per title rather than per volume because only one transaction at the terminal is necessary for each title, no matter how many copies are ordered. Neill figures were originally computed per volume. Neill's statistics show that 300 of the 2300 volumes added each year are second or added copies. Costs and times per volume were multiplied by 2300 to get total costs and times for all volumes added during an average year. The resulting figures were divided by 2000, the number of titles, to get a cost and time per title.

Time here refers to the time elapsed from the decision to purchase until the book is ready for circulation. Based on the one large sample order, three weeks pass from the time a decision to purchase is made until the order is mailed. The book arrives in another three weeks. The director stated that these times were typical. The median time for a book to be cataloged and processed is forty days. This adds up to about twelve weeks as the average time required from the decision to purchase until the book is ready for circulation. Since this is the figure per volume, it was adjusted as described above to yield a time per title.

Costs for the Network procedure were gathered from estimates by Holland staff based on their first three months' experience with Network. Because they are not yet using the Network for acquisition, no costs are available for that part of the procedure. Therefore, no firm conclusion can be drawn about projected costs except to note that they would be greater than $2.61. Their annual cost for processing was estimated at $60,000, of which Neill would pay 3/4 of 1%, or $450 as a user's fee to cover a share of system use and maintenance. Network staff indicated that charges are made for each search for each title, not for time used on the system. If Neill searched for each of the 2000 new

titles only once and purchased only one set of cataloging products per title, the cost per title would be $2.05. We assume that the Neill cataloger will make about the same proportion of mistakes as the Holland catalogers do and add another 10% for second searches or corrections. An additional 300 books a year, the added copies, would be searched by calling up Neill's own holdings, at a cost of $ .85 a title. Total annual costs for Neill using the Network would be:

User's fee to Holland	$ 450.00
Original searches	4100.00
Mistakes, second searches	410.00
Calling up own holdings	255.00
Total annual cost	$5215.00

This figures was divided by 2000 to get the cost per title.

Network time was estimated at three weeks between the placing of the order and the arrival of the cards and book at Neill. It was assumed that orders placed by the Network with publishers and/or jobbers would be handled at the same rate as orders placed by Neill. Another four weeks was allowed for checking the cataloging. This is rather a long period but is problably realistic because very little staff time is available for cataloging work and it remains to be seen whether affiliation with Network would free any time. Three weeks were allotted for correction to agree with the cataloger's recommendation. All of these times are rough estimates because the procedure has not been tried.

Any decision to join a Network will, of course, also heavily weigh qualitative factors. Much more is known about the quality of the present system than of the projected system. Neill's director places great value on good cataloging; standards are high. Each incoming item is cataloged even if it is accompanied by CIP data and/or cards. The card catalog is tailored to meet the needs of Neill's patrons. This would not be true if materials

were cataloged centrally. To maintain effective service to the patron, a large percentage of WLN cataloging would be altered to suit Neill's needs. This would increase the cost of Network processing. In addition, cards presently being used from jobbers are of a much heavier stock and with more legible type than the cards now being marketed by WLN. WLN's cards are too flimsy to be acceptable to Neill. The Network is aware of this problem and is trying to improve the quality of their cards.

Another benefit of in-house cataloging and processing is that the staff becomes familiar with materials through handling them and can give better reference service through knowing the collection in this way. Since there is now no time for reading the reference collection by the staff, this contact during processing is the main way the staff learns about the collection. The decreased familiarity with the library's materials might well lead to less satisfactory reference service.

Neill's system is flexible enough to handle requested items quite rapidly, getting a book to a patron within several weeks after it arrives. If this special rush system is continued, as it has been at Holland, requests would not be processed through the Network but through the old system. This would involve about 10% of the books, an amount which could probably be handled easily by one or two staff members with only a small part of their time. The time formerly given to processing could then be used to develop further public services. Possibly it would be used to allow the staff to read the reference collection, lessening the problem of poor reference service mentioned above. Other projects needing attention are better cataloging of the record collection, which could be done either through the Network or in-house; arranging, cataloging and expansion of the picture collection; more time for staff training and continuing education, and more outreach programs to such groups as senior citizens, the hospital and the city government.

The Neill staff is apprehensive about any change, especially about affiliation with the large academic library, which they see as a "big, inefficient bureaucracy." Staff members have, for the most part, been there for many years and strongly identify with the library. They regard a change as a threat to their job security and feel that it implies they have not been going a good enough job. Much time would have to be spent reassuring them, familiarizing them with the Network itself and presenting the benefits of of expanded public services in a constructive way.

Although there is no way to predict this, association with the state-wide Network might raise the status of the library in the eyes of the city government, which presently puts it last in any funding priorities. Being part of the Network would facilitate later adding of more Network services, which would, however, be costly, such as interlibrary loan searching, complete accounting services and a circulation system. Finally, there is the undeniable excitement of being part of a new and developing experiment like the Network; this enthusiasm has infected the director and the writer but not the other staff members.

From the point of view of Holland and Network members, the legal problems of cooperative membership remain unsolved. Several librarians now in the Network have pointed out that there are questions of priorities on the terminals, percentages to be charged to the cooperative member, responsibility for mistakes and the vast amount of bookkeeping involved to keep track of two users in one library. These can only be solved, it is felt, by a trial cooperative membership relationship between two libraries.

CONCLUSIONS

The purpose of this study was to discover what acquisition and processing services are available from the Washington Library Network through Holland Library and to examine Neill Public Library's current method of acquisition and processing with a view to possible improvements.

Several problems mar the reliability of the study and make further study at a later time desirable. The lack of information on acquisition services from the Network and the experimental stage of the Network's development make figures difficult to trust. A more detailed examination of Network acquisitions and processing when it is more established may give different results. At Neill, the lack of data on the juvenile collection is unfortunate; although costs and times are probably the same, according to the director, the absence of data leaves one-third of the Neill's collection unrepresented. The acquisition study at Neill is also not as precise as would be desirable because the study was done mostly at times when the writer was not there to oversee and answer questions. The acquisition times and costs are also slightly lower than they should be because no information was collected on step 10, writing vendors for corrections.

A contract with Holland Library would offer processing services at a cost of $2.61 per volume with a time from the Decision to Purchase to Ready for Circulation of about 10 weeks. When acquisition services are added, the charges will rise above this figure although time is expected to remain the same, as books can be coming from the publisher at the same time as cards are coming from Network. In addition, membership in the Network would offer the advantage of

more Neill staff time to be spent on outreach and reference services. More Network services, such as acquisition and accounting and interlibrary loan searching, could be added later. Affiliation with the wider library world would be an asset in the public library's struggle for accountablity and funding. Disadvantages are that a Neill staff member must go to Holland to work on the terminal, thereby cutting into the staff time freed for expanded reference and outreach. The Network is too slow for rush items so these, about 10% of the total, would still have to be cataloged and processed by the in-house method. Network cards are less legible and of poorer stock.

Neill's present acquisition and processing system costs $2.48 a volume and takes 12.86 weeks from Decision to Purchase to Ready for Circulation. Cards are printed legibly on good stock and cataloging is tailored to the needs of Neill's patrons. Eighty percent of the library's books already come with catalog cards and/or CIP data, assistance similar to what would be provided on Network cards. The staff knows the collection because they catalog and process the materials themselves; this helps them give better reference service. Rush items can be identified and handled rapidly. However, the in-house system is, on the whole, slower and uses a great deal of valuable staff time.

The lower cost and higher quality of the in-house system indicate that the best course is to continue to do acquisition and processing at Neill, incorporating improvements suggested by the study. An additional professional should be hired to coordinate the acquisition and processing, which is too large a job to be assumed by the director in addition to all her other duties. All processors, including volunteers who come in only once a week, should receive clear and consistent instruction in how to process, following the model processing flow chart. This includes checkpoints at the preparatory stage, when

the shelf list is typed, and at the typewriter when all cards and labels for the book are ready. Consistency in this procedure should improve efficiency by decreasing the number of mistakes. The back room, where books are stored while being cataloged and processed, should be recorganized so that a book's status is clear from its position. These whould be distinctly labeled shelves for books in the following catagories:

1. Ready to Catalog
2. Requests - Ready to Catalog
3. Ready to Process
4. Request - Ready to Process
5. Ready for Final Checking
6. Problems, needing the director's attention

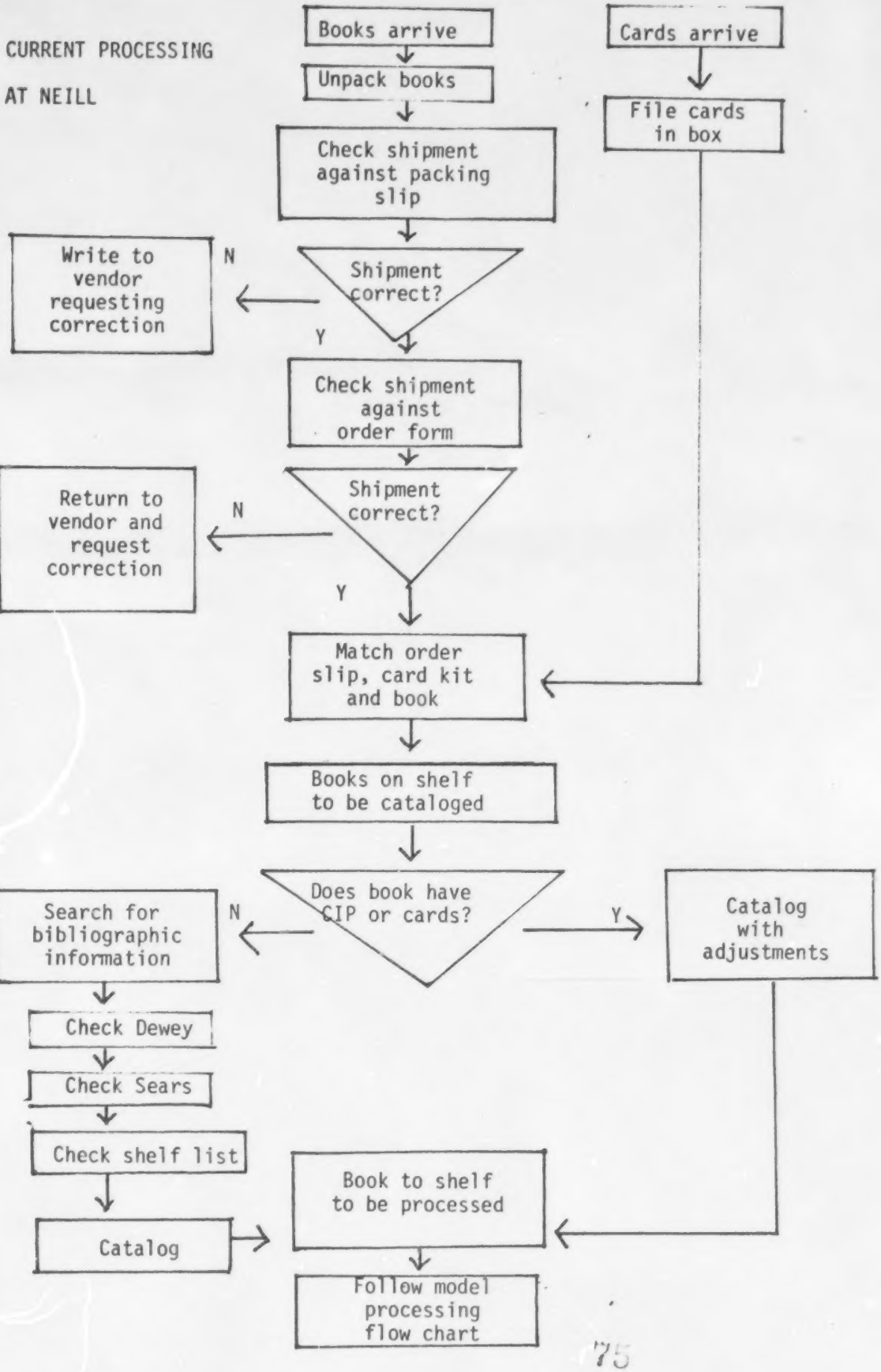
Better scheduling should be arranged so that cataloging and processing can be done in uninterrupted stretches of time. If this is not possible, the cataloging tools, the shelf list, Sears Subject Headings and Dewey Decimal Classification, should be moved into the back room away from the public area. With these improvements technical services at Neill will be upgraded and high quality of patron service will be maintained.

APPENDIX A

FLOW CHARTS OF ACQUISITION AND PROCESSING

CURRENT PROCESSING

AT NEILL



CURRENT ORDERING

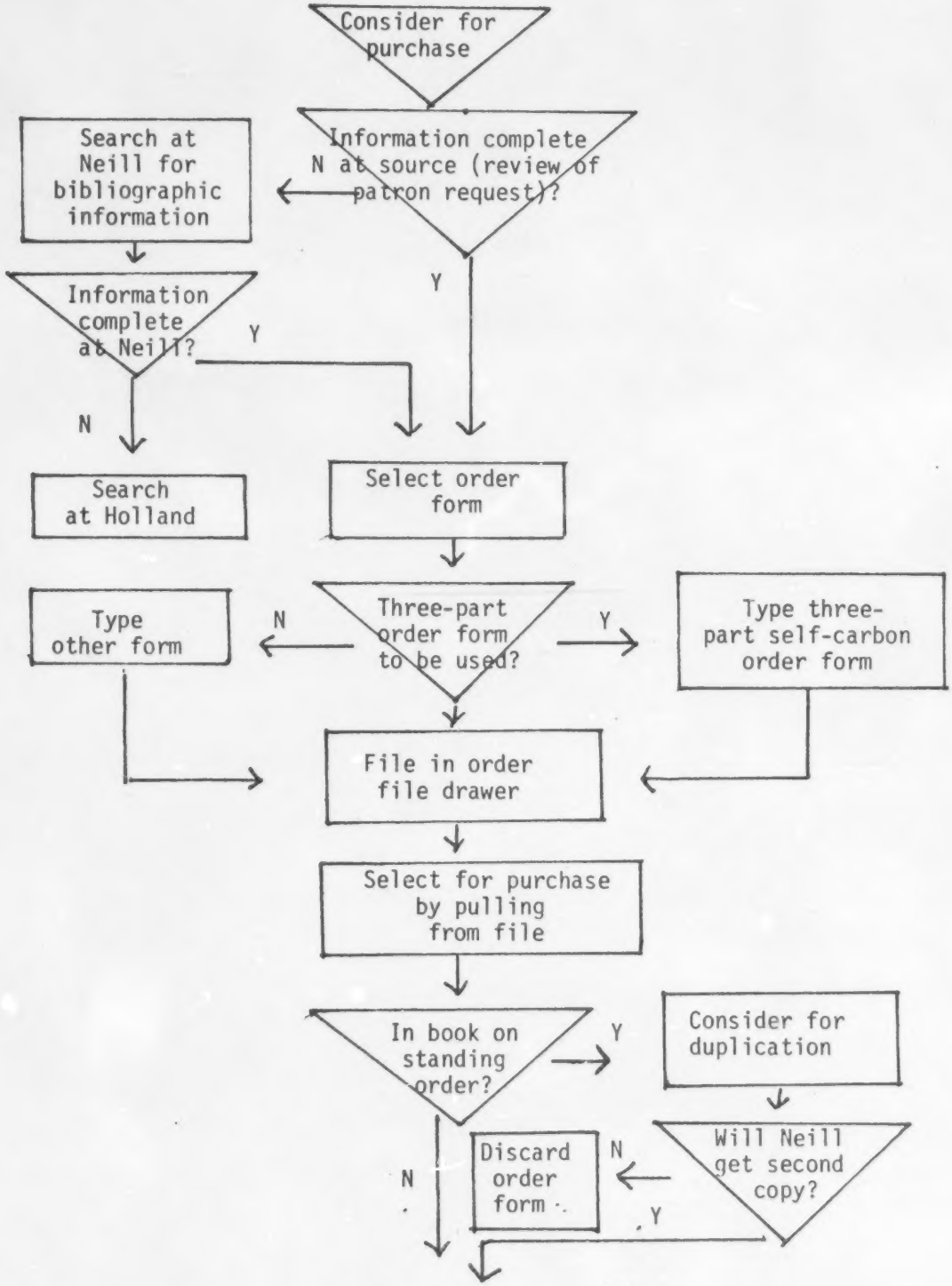
AT NEILL

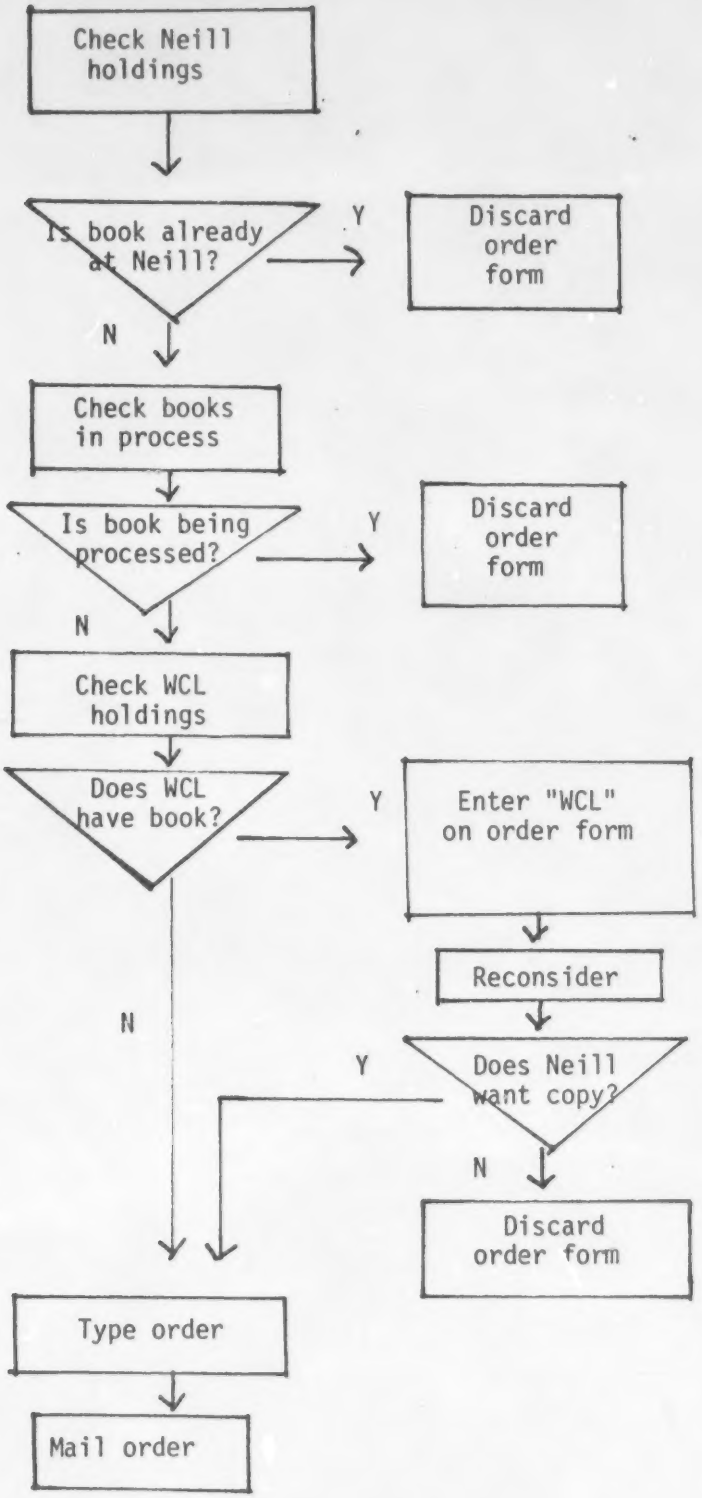
Symbols

Decision

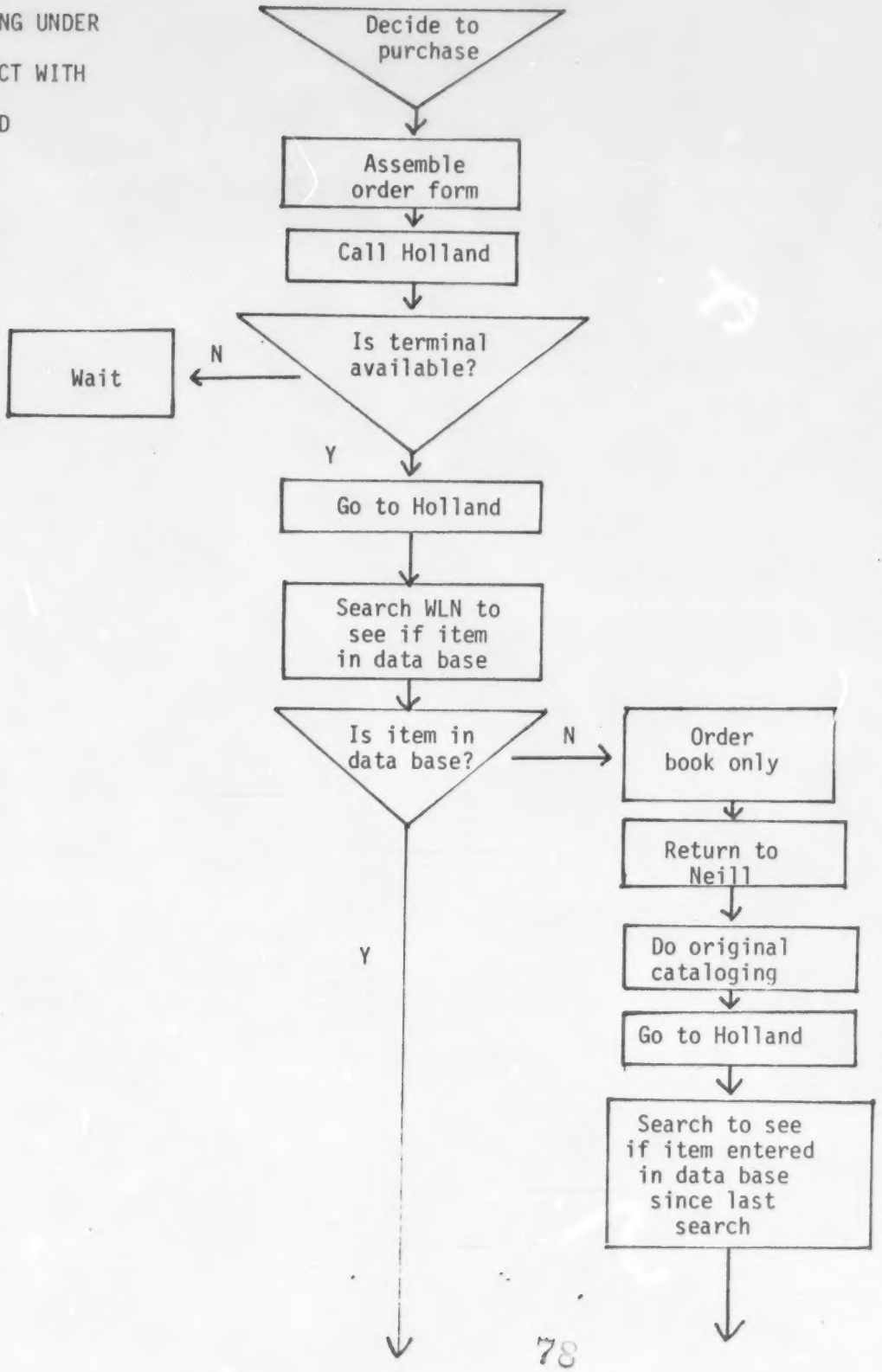
Process

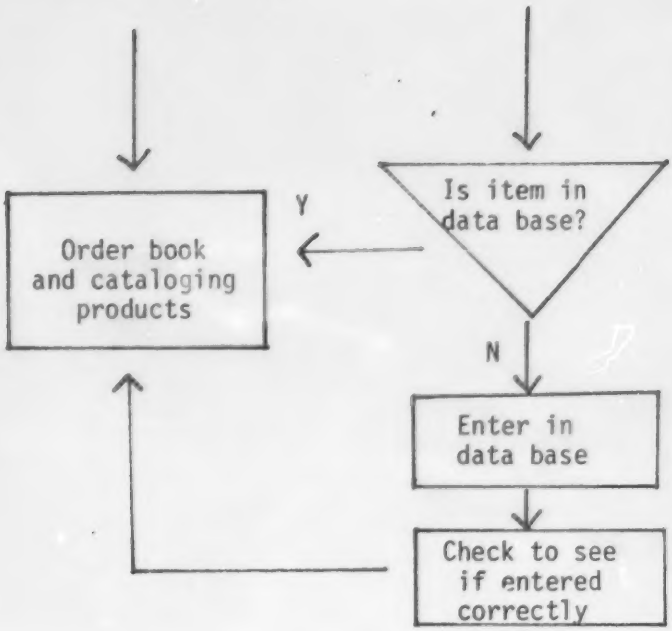
Whitman County Library-WCL



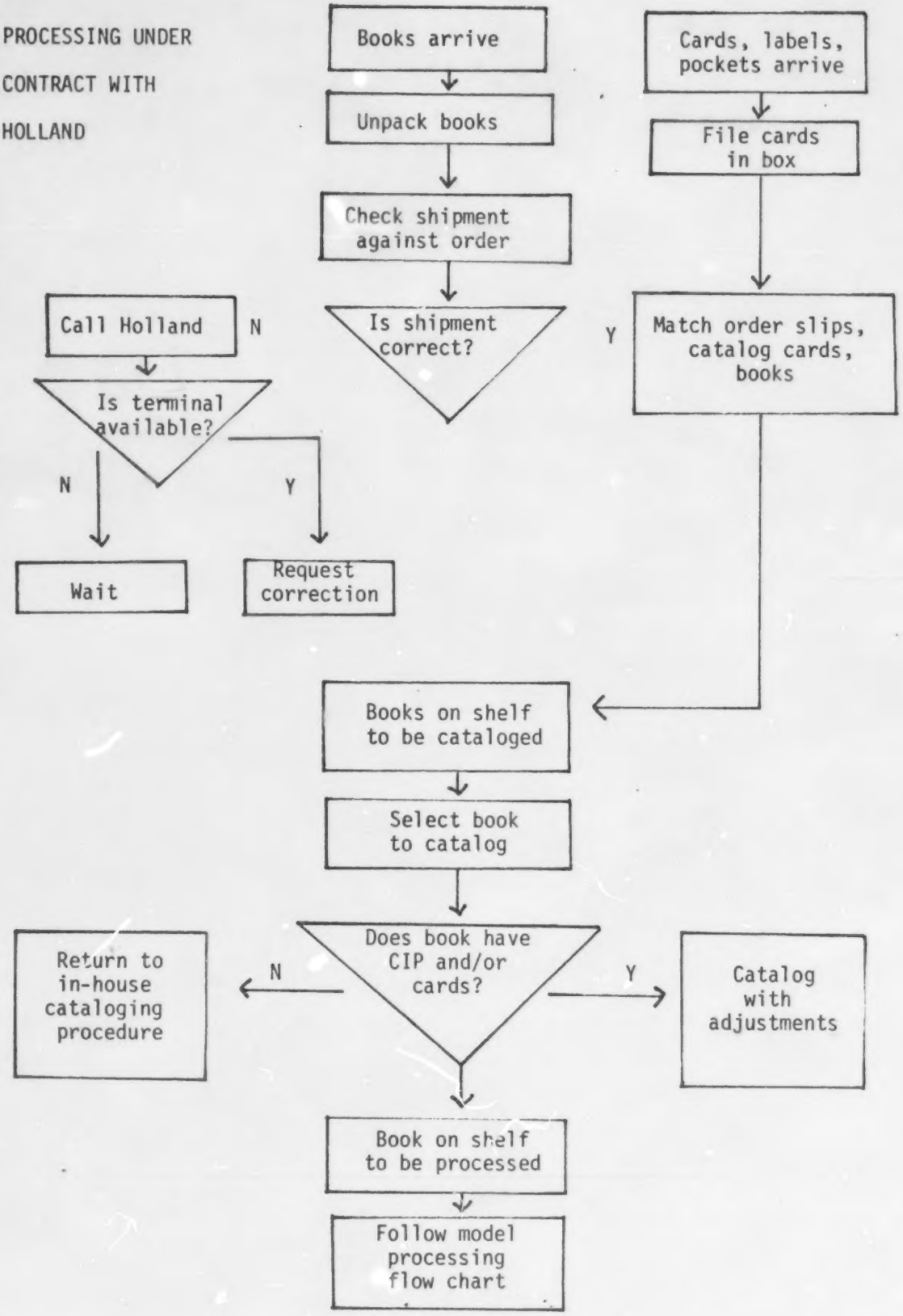

Check Neill holdings
Is book already at Neill?
Y
Discard order form
N
Check books in process
Is book being processed?
Y
Discard order form
N
Check WCL holdings
Does WCL have book?
Y
Enter "WCL" on order form
Reconsider
Does Neill want copy?
Y
N
Discard order form
N
Type order
Mail order

ORDERING UNDER CONTRACT WITH HOLLAND




Is item in data base?
Y
Order book and cataloging products
N
Enter in data base
Check to see if entered correctly

PROCESSING UNDER CONTRACT WITH HOLLAND



APPENDIX B

SAMPLE WORK STUDY FORMS

DIARY FORM FOR ACQUISITIONS: SEARCHING

Name Alice Blackburn
Date 1-17-78

AT NEILL

Begin search										
Stop search										

# of books(volumes) searched for

LEAVE NEILL 1:40

Begin search at Holland	2:10								
Stop search at Holland	3:08								

RETURN TO NEILL 3:28

# of books(volumes) searched for: 10 found, 13 not found = 23

# of hours of search time

Total labor cost

76

DIAR. FORM FOR ACQUISITIONS: CLERICAL WORK

Name Alice Kaplan

Date 1-24-78

Please fill out one of these each day you do this work, continuing on to a second form for the same date if necessary. Do not fill out the time and cost spaces at the bottom. Thanks!

Do not count the time spent in filling out the form or counting volumes.

TYPING ORDER FORMS

Start												
Stop												

# of books (volumes)

FILING ORDERS

Start												
Stop												

# of books (volumes)

77

PULLING ORDERS

Start	11:05	11:09	11:34	11:43								
Stop	11:06	11:30	11:35	12:08								

CHECKING CURRENT HOLDINGS(NEILL and/or WCL)

# of books (volumes) 23

Start												
Stop												

# of books (volumes)

84

Total time(minutes)

Total labor cost

85

K MEASUREMENT IN CLASSIFYING BOOKS

NAME Mrs.
DATE Nov. 21 xx

Please fill out one of these forms each time you classify. Fill out the right side as you work on each book without CIP or cards. As you return the books to the processing shelf, fill out the left side, counting only those books which are completely ready for processing. If your last book is no finished, do not complete the Ready and Total Time boxes and do not count the book on the left side.

NUMBER OF BOOKS

Number of books in batch that have been classified	𝍸
Number with CIP	𝍸 |
Number with cards	𝍸 𝍸
Number without CIP or cards	

TIME TO CLASSIFY BOOKS WITHOUT CIP OR CARDS

Start book 1	9:45	9:50								Book 1 ready	Total time
Stop book 1	9:48	9:54								✓	7
Start book 2	9:55	9:57								Book 2 ready	Total time
Stop book 2	9:56	10:04								✓	8
Start book 3	10:42									Book 3 ready	Total time
Stop book 3	10:44									✓	2
Start book 4	11:01									Book 4 ready	Total time
Stop book 4	11:10									✓	9
Start book 5	11:11	11:16								Book 5 ready	Total time
Stop book 5	11:14	11:24								✓	11
Start book 6	11:29	11:36								Book 6 ready	Total time
Stop book 6	11:34	11:45								✓	14
Start book 7										Book 7 ready	Total time
Stop book 7											
Start book 8										Book 8 ready	Total time
Stop book 8											87

78

88

DIARY FORM FOR PROCESSING

NAME Zoe
DATE 7 Nov 17

Please fill out one of these forms each time you take a load of books to the typewriter for processing. Do it even for one book or for only several minutes of typing. Fill out a separate form for each load, even if you return for several loads during one work session. Thanks!

Number of books with card packets selected for processing

Start typing										Number of stops
Stop typing										

Number of books with card packets completed(ready for stamping, etc.)

Number of books without card packets selected for processing 3

Start typing	9:20	10:40	10:50	11:17	11:30					Number of stops
Stop typing	9:25	10:45	11:15	11:25	11:40					

Number of books without card packets completed(ready for stamping, etc.) 3

	New catalog cards	Check-out cards	Pockets	Labels
Book 1	5	1	1	1
Book 2	5	1	1	1
Book 3	6	1	1	1
Book 4				
Book 5				
Book 6				

88

89

79

APPENDIX C

JOURNAL

APPENDIX C: JOURNAL*

16 September - Sarah remarked that "It looks like we are about to be studied" and implied "and I don't look forward to it." My heart sank and I assumed as light-hearted an attitude as possible, talking calmly about computers, their value as machines, just like cars we will get used to them but they are imperfect, etc.

17 September - Long conversation with Margaret about how she distrusts WSU and doesn't want our library "mixed up with them in any way."

21 September - Melanie and I spent a pleasant hour or so with the WLN people, who turned out to be our old friend Clay Burroughs. Melanie was particularly taken with the CRT and I found out some of what I need to know.

22 September - Carol stopped by to see how things were going with the night staff. I mentioned the visit Melanie and I made to the WLN people, that it was obviously "great fun" to play with computers but "I'm not sure it's for us." "Right." from Carol, "But that's what your study will find out." We talked about my concern that staff will feel their usefulness is lost if processing is done by computer. Carol said she is very aware of that and that a positive approach must be made, that no one loses her job because of computers - she just does different things. Apparently there will not be a general staff meeting in time for me to explain it all to everyone. Carol is explaining it all to them, she says. I wish she wouldn't but am only there half-time so I miss a lot.

26 September - First interview with a processor, volunteer Inez. Also a half-hour with Carol on just what we do for acquisitions and processing. Received call from WSU that I can come to their training for the Network next Monday.

28 September - Did rough flow chart on Donna's processing. She surprised me by being very helpful and clear, seemed to know just what I want.

29 September - Spent the morning in the library waiting an hour to see Carol and then going over the flow chart in detail. She had many good comments and revisions.

30 September - Rather unsuccessful attempt to flow chart Sarah and Margaret - many interruptions. Both greeted me with dread. Margaret was very apologetic and made nervous by my presence. Sarah really has some good techniques and has given some thought to motion efficiency and accommodating her own physiology, i.e. her back so that she can work well.

3 October - Afternoon spent being trained to use the terminal with Holland staff. Rather a bored reception by the Holland staff, although the trainer was a most friendly and helpful person.

10 October - Began diary study with boxes of forms placed under shelf of books to be processed. Linda thinks it is fun to keep track, especially to see how many interruptions she has.

*Names have been changed to preserve anonymity.

17 October - One week of data collection. Some trouble with people forgetting to fill in forms but mostly everyone is very cooperative. Carol filled one out today for the first time and found it a lark!

20 October - Linda has already decided to change her processing technique somewhat, as she has been thinking about efficiency as she works. As she finishes the cards for each book, she places the workslip in the book with the call number sticking out. She can then type all the labels at once without fussing with the difficulties of inserting the sheet of labels in the typewriter more than once. She could hardly wait to tell me her new method.

24 October - Flow charted Inez again today. She jokingly said she hates my forms but she was really cooperative and commented on how much harder we all work when we know we're being timed. Had a hard time myself keeping track of the time on my cataloging form while also being on the desk.

31 October - Carol and I talked about whether we are being consistent in how we fill out the cataloging forms. She always fills in the time even if the books have CIP and/or cards; I sometimes fill in time for CIP or books with cards but make a note of it if I do. We decided to fill in time for each book, whether CIP or cards or nothing, making appropriate notes. It does not seem to save any time to have cards or CIP because we check each suggested subject heading aginst our own catalog and against Sears anyway-frequently they are incorrect or inappropriate.

4 November - I realized that I am not collecting information on supplies used. I have assumed that I can get figures from Mary but today it struck me that I will have no way of knowing how many of those supplies purchased have been used for processing during this study - they become too dispersed. Carol and I consulted and agreed to add spaces on the processing forms to record the number of catalog cards used, number of pockets, etc. We asked Donna for advice and she very handily designed a form which I will add to each processing diary sheet.

18 November - End of study. Put up a big sign thanking everyone.

22 November - At staff meeting thanked everyone. Several made comments to the effect that it wasn't so bad and they were glad to cooperate. Everyone's mind is pretty well distracted by the demotion our library director has suffered under the city reorganization.

26 November to 19 December - Gone to Interterm

27 December - Grand welcome back. Good to see everyone. Much exchange of news over city structure crisis. Mary has decided to leave the library. Also still looking for a children's librarian.

28 December - Showed results so far to staff. Carol, Linda and Roger pore with gratifying interest over my charts. I posted a model processing flow chart below the Ready to Process shelf. Sally delighted me by copying it for her own use, saying it is just what she needs.

9 January - Interviewed Carol once again to get acquisitions routine clear. Staff in turmoil over personnel changes but putting best face on it. Acquisitions study seems less than vital in the midst of all this. I am designing forms as much like those for the processing study as possible so as to cause the least confusion. Carol is ready to begin spending the 1978 book budget so we will start the acquisitions study on Monday.

16 January - Began acquisitions study with forms to be on Carol's desk and in the secretary's office. New children's librarian arrived today.

23 January - Made doughnuts for the staff, as Kate had said, in her joking but meaningful way that I should throw a party. Coffee break was a chance to talk about how relieved everyone is to have things settling down.

27 January - I feel uncomfortable with the study because the work is always done in the afternoon when I am not there so I don't have control over it or a chance to answer questions; people must make up their own answers.

28 January - Jill is disgusted with having to fill out the acquisitions forms but does it patiently and accurately. Found an unsigned form today and also one with no number for Number of Volumnes.

31 January - A form turned in with no times. Having the acquisitions study now is probably too much to ask of the staff. Enthusiasm is low because everyone's energies are still absorbed by the problems with the city.

25 January - Explained study to Cynthia. She expressed scorn for "these research projects done by library school students." I briefly explained the study and what I would like her to do.

1 February - Fleeting discussion with Margaret about how affiliation with the Network will be slower and prone to "red tape." Margaret admits she has always felt the library should remain independent of all outside agencies.

2 February - Cynthia is faithfully filling out forms, but not recording interruptions. Also, she is doing her ordering in conjunction with a survey of the entire juvenile collection. Her data isn't going to be really representative yet it probably should be included so that <u>some</u> information from the juvenile area will be in the study.

6 February - End of the work study. I will miss it! But no one else will! Now comes the hard part.

APPENDIX D

WASHINGTON LIBRARY NETWORK

WASHINGTON LIBRARY NETWORK

MEMBERSHIP AND ORGANIZATION

The Washington Library Network, in its enacting legislation, is defined as "an organization of autonomous, geographically dispersed participants" using the Network components: a. Interlibrary system; b. Reference/Referral system; c. Telecommunications system; d. Computer system. Responsibility for the Network is placed with the Washington State Library Commission, except for certain data processing functions; and the State Librarian is identified as executive officer of the Network. Individual libraries are assured in the legislation of retaining authority for their own collection development and use; and membership in the Network is voluntary.

The purpose of the Network includes the sharing of information and resources to meet the needs of libraries and their present and potential users.

More detail of the organizational structure and membership are included in the rules and regulations and are briefly summarized. The Network was designed to include all types and sizes of libraries. This participation is accomplished through three categories of membership:

a. **Basic Membership**, which requires a written agreement to participate in interlibrary loan and reference/referral services,
b. **Cooperative Membership**, which requires Basic Membership plus a contract to purchase products and to contribute to the data base of the computer system, and
c. **Principal Membership**, which requires Basic Membership and contributions to the data base through on-line access to the computer system.

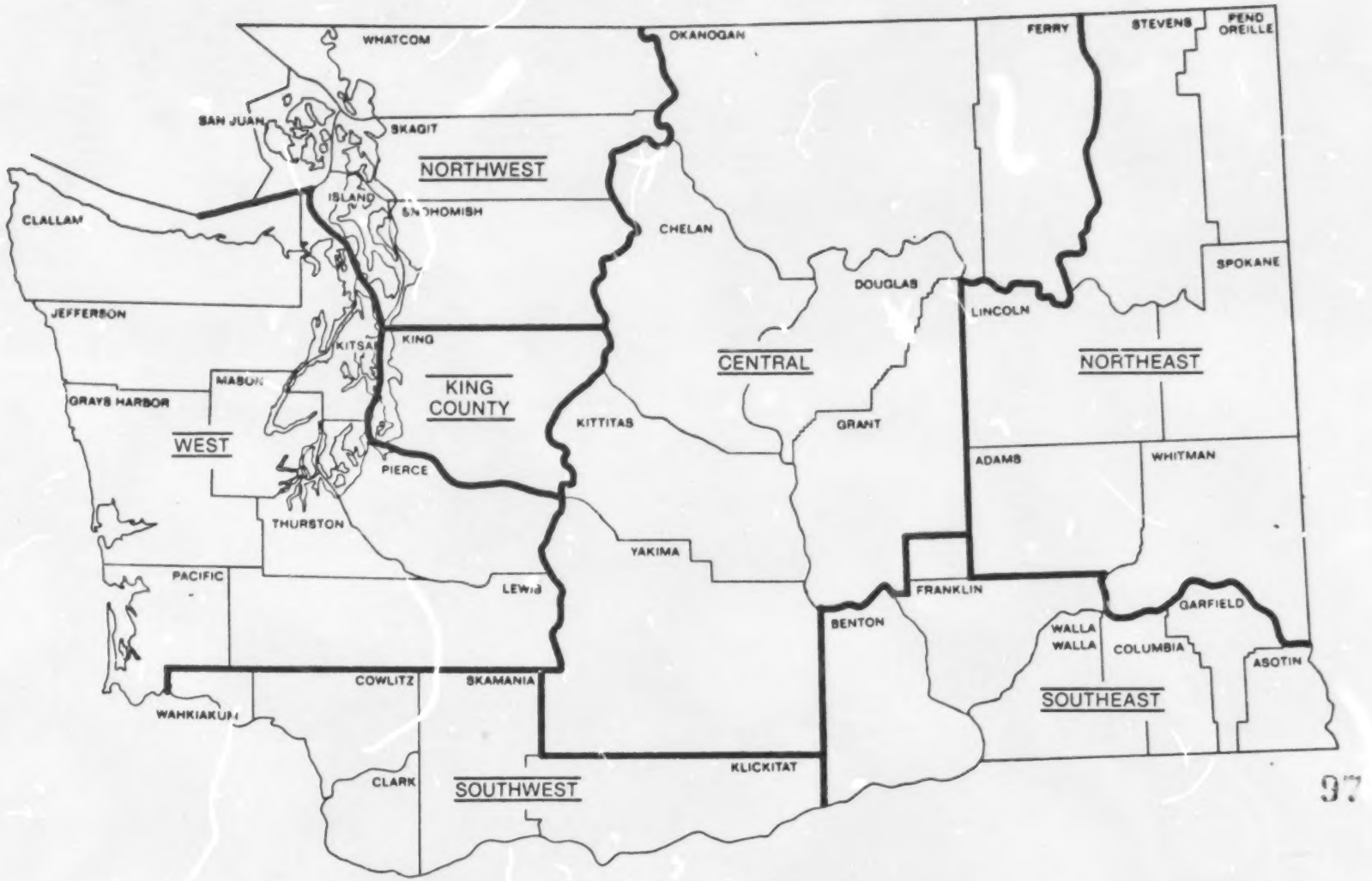
The organizational structure is based on the philosophy of coordination and cooperation. Toward this goal the State Library Commission has designated seven geographic regions of the state as **Library Service Areas**. Within each Service Area libraries develop multitype library programs and activities to meet the needs of libraries and their users.

Statewide coordination is accomplished by the **Representative Assembly.** Each Library Service Area is entitled to elect six at-large representatives to the Assembly, which participates in planning Network programs, activities and services; and provides a means for communication, direction, and evaluation of the Network. The Assembly also includes one designee from each Principal Member.

An **Executive Council** of eleven members is elected from and by the Representative Assembly. Nine of the Council members represent certain types and sizes of libraries, and two are elected at-large. The requirement for the involvement of various types of libraries is to assure broad expertise as the Council fulfills its leadership and coordination functions. In addition to this formal organizational structure, additional participation is accomplished through committees and task forces which are appointed by the Council to address specific issues, problems and needs.

Bibliography:
Laws of Washington, Chapter 31, Laws of 1975 - 76, 2nd Ex. Session (44th Legislative Session)
Washington Administrative Code 304 - 25.

WASHINGTON LIBRARY NETWORK
LIBRARY SERVICE AREAS
as established by the
Washington State Library Commission
December 14, 1976



WSL 12/76

WASHINGTON LIBRARY NETWORK COMPUTER SYSTEM

OUTLINE OF CAPABILITIES

The Washington Library Network computer system is being designed and implemented in four subsystems: bibliographic, acquisitions/accounting, circulation, and serials control. These subsystems interrelate with each other, minimizing duplication of information files and improving access to information pertaining to a variety of library functions.

The computer system is primarily an on-line system. Participating libraries will add information to and query the data base using their own computer terminals. This eliminates a central bottleneck of workflow, improves local control of library operations, and greatly increases the speed with which a library may input and retrieve information on the data base. Hard copy reports and processing materials are available as batch output.

BIBLIOGRAPHIC SUBSYSTEM

.Bibliographic data base

- -Consists of bibliographic records from Library of Congress MARC tapes (1968 to date) and locally input MARC-formatted records (1972 to date).
- -Contains 916,729 records as of August 1977. 131,542 of which have WLN holdings attached.
- -Types of library material covered are monographs, serials, and projected media. Music, sound recordings and other media will be added in the future.
- -Holdings records show the library location of materials described in bibliographic records.

.Authority data base

- -Contains authority records and cross references for names, subjects, series, and uniform titles from headings used in bibliographic records.
- -Contains 1,133,708 records as of August 1977.
- -System will support a limited number of authority groups to accommodate requirements of retrospective conversion and out-of-state networks.

.On-line capabilities

- -On-line input and edit of bibliographic, vocabulary and holdings records.
- -On-line request for catalog cards and processing materials.
- -On-line inquiry of bibliographic and vocabulary data bases by author, subject, series, uniform title, name and subject subdivisions, title keywords, corporate and conference name keywords, LC card number, ISBN, and ISSN.
- -On-line inquiry of holdings file.

.Products

- -Catalog cards with headings overprinted and spine/pocket labels: batch produced from requests made on-line by WLN participants.
- -Resource Directory: contains locations and cataloging information for materials acquired by WLN participants since joining the Network. (Microfiche format).
- -Customized book catalogs (photocomposed print, microfiche, etc.): may be produced for one library or a group, and may include one or more types of material, e.g. films, serials, documents.

ACQUISITIONS/ACCOUNTING SUBSYSTEM

.Monitoring of items from selection through receipt and payment.
.On-line access through bibliographic file by all keys, as well as by purchase order number.
.Access to bibliographic data base for verification at time of selection.
.Monitoring of subscription renewal and payment.
.Automatic generation of standard forms: purchase orders, claim letters, vendor reports, notification of receipt, etc.
.Maintenance of fund and accounting records with generation of hard copy reports.
.On-line input and update of records.
.Automatic transfer of applicable cataloging information in bibliographic records to create acquisitions records.
.Ability to generate a variety of management statistics.

CIRCULATION SUBSYSTEM (under development)

.Automatic maintenance of circulation records: check in/out, patron I.D., date due, reserves, fines, etc. (Uses light pen to read bar-coded labels.)
.Automatic generation of forms: overdues, fine letters, etc.
.Maintenance of records for lost and missing items.
.On-line input, update, and inquiry of records.
.Management statistics.

SERIALS CONTROL SUBSYSTEM (under development)

.Check-in for issues received.
.Automatic claiming of issues not received.
.On-line input, update, and inquiry of records.
.Binding control.
.Management statistics.

COMPUTER HARDWARE

.IBM 360/65 (IBM 370 may also be used)
  -2 million bytes
  -5 9-track 1600 BPI tape drives
  -24 IBM 3336 disk packs
.ALA print train
.Hazeltine Modular 1 CRT terminals (synchronous or asynchronous)
.Various asynchronous terminals

COMPUTER SOFTWARE

.OS/MVT
.PL/1
.Assembler
.CICS teleprocessing monitor
.ADABAS data base management system
.MARK IV

IMPLEMENTATION

Implementation of the Bibliographic subsystem is top priority for WLN staff. All of the present participating libraries are now on-line using the Bibliographic subsystem and will be trained to use all the capabilities by Fall, 1977. The major portion of the Acquisitions subsystem is developed and the computer programs are being tested at the State Library. The Acquisitions subsystem is next in line to be implemented after the Bibliographic subsystem. The Circulation subsystem is being developed as a prototype for WLN with the Tacoma Public Library and specifications for the Serials Control subsystem are nearing completion.

FOR FURTHER INFORMATION contact Raymond DeBuse, Associate Director for Network, Washington State Library, Olympia, WA 98504 (206-753-2859).

GUIDELINES
FOR AN APPROACH TO
WLN COOPERATIVE MEMBERSHIPS

I. Guidelines from WAC 304-25
Assumptions from guidelines

II. Contracts
Assumptions
RECOMMENDATIONS

Ideas, input should be sent to Marge Haviat, Bellevue Com. College

I. Guidelines from WAC 304-25

304-25 WASHINGTON LIBRARY NETWORK, RULES AND REGULATIONS

WAC 304-25-030 DEFINITIONS.

(7)

(b) Cooperative Membership requires basic membership, plus a contract with a Principal Member or with the Network Service Center, to purchase products and to contribute to the data base of the computer system.

(c) Principal Membership requires basic membership and contributions to the data base through on-line access to the computer system.

(9) "Network Service Center" is the unit of the State Library responsible for the efficient, effective, and coordinated development and utilization of the Network components.

WAC 304-25-050 WLN MEMBERSHIP. (1) Any library or library system in Washington is eligible for membership in the Network, and any institution or organization financially supporting library/information services may provide membership for that library/information service.

(2) Agreements between and among libraries for interlibrary systems or other cooperative undertakings for mutual advantage can be established as provided in Chapter 39.34 RCW in order to improve services by more effective participation in any or all components of the Network.

(3) Categories of membership are Basic Membership, Cooperative Membership, and Principal Membership

WAC 304-25-060 WLN MEMBERSHIP RESPONSIBILITIES AND RIGHTS. (1) Each member shall agree to: share resources with the exception that rare, proprietary or restricted materials may be exempt; implement standards and protocols; avail themselves of continuing education and training opportunities provided by the Network; and provide continuous training and re-education of staff and users for effective utilization of the Network. Principal and Cooperative Members shall, in addition, contribute to the data base.

Assumptions from guidelines.

1. *Anyone who owns or leases a terminal will be a principal member.*
2. *Every cooperative member shall have a unique identification symbol with the WLN.*
3. *Once a library has been identified as a cooperative member, they may have on-line access to WLN through a service contract.*

II. Contracts

There shall be two contracts for cooperative members:

A. Cooperative membership contracts. Cooperative membership contracts will be between the cooperative member library and the WLN. All rights and privileges afforded to principal members as spelled out in the principal member

contract should be made available to cooperative members. Various options are possible depending on the service contract. The wording of the cooperative membership contract should not assume that all members will carry out all of the aspects of the principal membership contract.

4. *All WLN services are available to cooperative members including input of original cataloging.*

5. *All cooperative members will attempt to enter their holdings in the data base.* 1,

B. Service contracts. Service contracts will be between the cooperative member and a principal member or the Network Service Center. There are two possible levels of service contracts.

1. Terminal Use Only. In this case, the cooperative member's staff will have access to a terminal to input its material. The contract should cover the recovery of local costs. All costs from the Network should be billed to the cooperating member library.

6. *There will be no discriminatory pricing for cooperative members.*

WE RECOMMEND that system use should be billed directly to cooperative members. System products should be billed directly to cooperative members. Cooperative members should share the same fee structure as principal members.

2. Terminal Use and Principal Member or Network Service Center Staff Use.

In this case, the cooperative member will have its material entered by the staff of the principal member or the service center. The contract should cover all of the costs listed for the terminal-use-only contract, as well as costs of staff time. Reasonable charges for staff may be made subject to the approval of the executive officer of the WLN.

> *Principal Member may contract with one or more Cooperative Members to furnish specified Network Computer Services at costs agreed upon between these contractors, and approved by the Executive Officer of the Network. Any such library or libraries to which Network Computer Services are provided must be a Cooperative Member of the Network prior to the provision of said services.*
>
> *(from p. 5, WLN Principal Member Contract)*

7. *Cooperative member personnel or service contact personnel in the name of the cooperative member may have access to a terminal.*

8. *Service contracts may exist between principal members or between principal members and the Network Service Center.*

WE RECOMMEND that the executive council consider what services could be reasonably supplied in an off-line mode to cooperative members.

WE RECOMMEND that all libraries, either in-state or out-of-state, follow the established contracts for memberships.

WE RECOMMEND that all contracts with Network Service Center for services follow the same established contract for services.

WE RECOMMEND that sample service contracts be written.

WE RECOMMEND that libraries desiring to become cooperative members of WLN be given encouragement, consideration and a definite place in priority of cooperative membership.

BIBLIOGRAPHY

Sources cited

Budington, W.S. "Cost of Information Service." The Library as a Community Information Center. Urbana: Illini Union Bookstore, 1959: 59.

Carter, Ruth. "Automation of Acquisitions at Parkland College." Journal of Library Automation 5 (June 1972): 118-136.

_____ . "Systems Analysis as a Prelude to Library Automation." Library Trends 21 (April 1973): 505-521.

Chapman, Edward A. "Planning for Systems Study and Systems Development." Library Trends 21 (April 1973): 479-492.

Clements, D.W.G. "The Costing of Library Systems." ASLIB Proceedings 27 (January 1975): 98-111.

Corey, James F., and Bellomy, Fred L. "Determining Requirements for a New System." Library Trends 21 (April 1973): 533-552.

Cox, Carl R. "Centralized and Cooperative Cataloging." News Notes of California Libraries 50 (April 1955): 357.

Darling, Richard. "Is Central Processing For You?" Library Journal 91 (December 15 1966): 6153-6156.

Dennis, Donald. Simplifying Work in Small Public Libraries. Drexel Library School Series, no. 11. Philadelphia: Drexel Institute of Technology, 1965.

Dougherty, Richard M. and Heinritz, Fred J. Scientific Management of Library Operations. New York: Scarecrow Press, 1966.

Duchesne, Roderick. "Analysis of Cost and Performance." Library Trends 21 (April 1973): 587-603.

Fasana, Paul J. "Determining the Cost of Library Automation." ALA Bulletin 61 (June 1967): 656-661.

_____ . "Impact of National Developments on Library Technical Services and Public Services." Journal of Library Automation 7 (December 1974): 249-262.

Franklin, Ralph W. and MacDonald, Clarice I. "The Washington Library Network." Special Libraries 67 (February 1976): 84-90.

Freedman, Maurice J. "Automated Network Catalog Products and Services." Journal of Library Automation 9 (June 1976): 145-155.

_____ . "The Automation of Cataloging--1976." Library Trends 25 (January 1977): 703-721.

Frieze, William S. "The Administrator Looks at Technical Processing: the Public Library." Library Resources and Technical Services 2 (Fall 1957): 203-206.

Griffin, Hillis L."Estimating Data Processing Costs in Libraries." College and Research Libraries 25 (September 1964): 400-403.

"Guidelines for Centralized Technical Services." Library Resources and Technical Services 10 (Spring 1966): 233-240.

Hayes, Robert M. and Becker, Joseph. Handbook of Data Processing for Libraries. New York: John Wiley and Sons, 1970. pp. 58-71.

Heinritz, Fred J. "Analysis and Evaluation of Current Library Procedures." Library Trends 21 (April 1973): 522-532.

Hendricks, Donald D. "A Report on Library Networks." University of Illinois Graduate School of Library Science Occasional Paper no. 108. September 1973.

Hiatt, Peter. "Cooperative Processing Centers for Public Libraries." Library Trends 16 (July 1967): 67-84.

Jacob, Mary Ellen L. "Standardized Costs for Automated Library Systems." Journal of Library Automation 3 (September 1970): 207-217.

Librarian's Handbook for Costing Network Services. Project No. 475AH50102 of HEW, Office of Education, Division of Library Programs. Boulder, Colorado: WICHE, 1976.

Logsden, Richard. "Time and Motion Studies in Libraries." Library Trends 2 (January 1954): 401-409.

Lynch, Michael Patrick. "Northern Colorado Processing Center: an Appraisal of Procedural Changes Effective July 1, 1963." M.A. thesis. University of Denver Graduate School of Librarianship, August, 1963.

Mason, Ellsworth. "Along the Academic Way." Library Journal 96 (May 15 1971): 1671-1675.

Mather, Dan. "Data Processing in an Academic Library: Some Conclusions and Observations." Pacific Northwest Library Association Quarterly 32/4 (July 1968): 4-22.

McElrod, J. McRee. "The Staffing of Technical Processes." Library Journal 91 (May 1 1966): 2275-2277.

Morsch, Lucile M. "Scientific Management in Cataloging." Library Trends 2 (January 1954): 470-481.

Pierce, Watson. Work Measurement in Public Libraries. New York: Social Science Research Council, 1949.

Reed, Mary Jane Pabst. "The Washington Library Network's Computerized Bibliographic System." Journal of Library Automation 8 (September 1975): 174-199.

Shera, Jesse H. "Automation Without Fear." American Library Association Bulletin 35 (October 1961): 787-794.

Stuart-Stubbs, Basil. "Trial by Computer." Library Journal 92 (December 15 1967): 4471-4474.

Swinney, William G. "A Study of the Comparative Costs of Centralized Processing and Individual School Processing of Library Materials." M.A. Thesis. University of Denver Graduate School of Librarianship, 1967.

Thompson, Ann and Madison, Marian. "A Study of Criticisms Occurring in Centralized Processing Centers for the College and University Libraries in North Dakota." M.A. Thesis. University of Denver Graduate School of Librarianship, July, 1969.

Veaner, Allen B. "Application of Computers to Library Technical Processing." College and Research Libraries 31 (January 1970): 30-42.

_____ . "BALLOTS--The View from Technical Services." Library Resources and Technical Services 21 (Spring 1977)" 127-146.

_____ . "Institutional, Political and Fiscal Factors on the Development of Library Automation, 1967-71." Journal of Library Automation 7 (March 1974): 5-26.

_____ . "Major Decision Points in Library Automation." College and Research Libraries 3 (September 1970): 299-312.

Voos, Henry. Standard Times for Certain Clerical Activities in Technical Processing. Ann Arbor: University Microfilms, 1965.

Welch, Sharon Louise. "A Study of Methods to Determine the Feasibiblity of a Centralized Processing Center for School Libraries." M.A. thesis. University of Denber Graduate School of Librarianship, 1967.

Additional sources

Bendix, Dorothy. "Regional Processing for Public Libraries: A Survey." Library Resources and Technical Services 2 (Summer 1958): 155-170.

Although this is an older source, the problems of reliable cost estimates and adequacy of central cataloging for local needs, which she found in centralized processing, are still relevant and are well defined here.

Dougherty, Richard [illegible] Leonard, Lawrence E. Management and Costs of Technical Processes: A Bibliographic Review, 1876-1969. Metuchen, N.J.: Scarecrow Press, 1970.

About seventy-five helpful references under "Book Processing Center Costs," "Cataloging (Work Simplification)," "Cost Studies" and "Technical Processes Costs." Index.

Hanley, Mary. Centralized Processing, Recent Trends and Current Status: A Review and Synthesis of the Literature. University of Illinois Occasional Paper no. 71, April, 1964. pp. 11-13.

Entire paper is an annotated bibliography of the literature from 1950 to the summer of 1963, but these two pages of general materials on centralized processing are particularly helpful.

Hayes, Robert M. and Becker, Joseph. A Proposed Library Network for Washington State. Working paper for the Washington State Library, 1967.

The earliest available written description of Washington Library Network; this outline was generally followed when the Network was organized.

Hendricks, Donald D. Comparative Costs of Book Processing in a Processing Center and and in Five Individual Libraries. University of Illinois, Urbana: Library Research Center, Research Series no. 8, 1966.

Includes thorough bibliography divided into general works on public library cooperation, library cost studies, time and motion studies and centralized processing.

"Unpublished Studies of Technical Service Time and Cost: A Supplement." Library Resources and Technical Services 20 (Fall 1976): 326-333.

Abstracts of twenty research studies in the United States from 1971 to 1976. Many include detailed description of their methodology, which may be useful in designing a study.